Legacy

A second generation, multilevel, role assumption simulation game.

Designed by:

David A. Feldt

Graphics by:

Shannon E. Berger

David A. Feldt

Participants in the playtesting and design process:

Kint Angahar

Tim Berla

Orin Buck

Greg DeCesaer

Bruce Duffy

Allan G. Feldt

Don Finkbeiner

Melissa Penn

Kathy Smith

Michael Stambaugh

Russell J. Stambaugh

Paul Stien

A special acknowledgment is extended to Gary Gygax and his associates at Tactical Studies Rules in Lake Geneva, Wisconsin for their pioneering contribution DUNGEONS AND DRAGONS. The current flurry of interest and excitment surrounding role assumption games would have been substantially delayed if not for the exposure and widespread use of their rough but ready game system. In a very real sense the LEGACY game systems are only an expansion and systematization of the DUNGEONS AND DRAGONS rules, though they extend beyond the TSR effort sufficiently to warrant their publication as an independent set of role assumption rules.

This game was published by the designer, artist, and associates in June, 1978. Inquiries and questions should include a self addressed, stamped envelope for reply and may be sent to; LEGACY 217 Harmon road Camden, Michigan 49232.

LEGACY (copyrighted 1978)

Preface

Shannon E. Berger

Preface

- CONTENTS -

INTRODUCTION	A brief description of the LEGACY game system and it's potential uses.	page **3**
ORGANIZATION	An explaination of the format used to differentiate the various parts of the LEGACY rules.	page **4**
TABLE OF CONTENTS	A listing of the names and locations of the various parts of the LEGACY rules.	page **5**
DEFINITIONS	A table defining the terms, abbreviations, and symbols used in the LEGACY rules.	page **6**
REMARKS	A brief set of comments from the designer intended to assist the reader in his or her initial integration of the LEGACY rules.	page **11**

INTRODUCTION

The LEGACY game is a second generation role assumption simulation which incorporates much that has been learned by users of role assumption games during the last four years. Many of the concepts and rules contained within the LEGACY game system are sophisticated compared to those included in other commercially available role assumption games, yet they are contained in a logically structured and internally consistent format which allows players to use information they already possess to aid them in locating rules and procedures and resolving game situations. Because the LEGACY rules attempt to simulate reality in a holistic manner incorporating many currently accepted principles of Biology, Geology, Chemistry, Physics, and Astronomy, the existing body of information available in reference and other sources may be used in conjunction with or to expand the LEGACY rules upon need.

The underlying principle of the LEGACY game is the capability to create a logical and internally consistent environment within which a player or players may interact with a variety of components to cause one or more interesting or educational experiences. Unlike many other role assumption games this is accomplished by simulating the entire environment and leaving the player free to choose from a variety of courses of action limited primarily by the players own ability to percieve and interact with his or her environment. In other role assumption games the options or courses of action open to a player at any given time are limited by the available rules or preparations made by the game operator, while the LEGACY game has been specificly designed to allow the players a virtually unlimited number of options and the game operator the capability to expand the rules and preparations as needed, without significantly interrupting the course of play. This is accomplished through the availability of a hierarchy of scale levels on which the action of the game may be resolved and the provision for new rules and procedures built in to the existing portions of the LEGACY rules.

The variety of environments and situations which the LEGACY game system attempts to simulate is substantially greater than any of the existing commercially available role assumption games, yet the number of environments for which specific information is contained within this rules booklet is smaller than that which is offered by some of the commercially available role assumption games. This is primarily due to lack of space within this booklet, but careful instructions are included allowing the user to "load" the game with rules and information sufficient to create an independent environment or situation. Many of the rules included in commercially available role assumption games such as; magic, psychic ability, large scale combat, warfare, naval combat, fantastic mutation, and cultural conflict are not included in the LEGACY rules to allow a complete coverage of the topics which are included within this booklet. Should rules covering those areas mentioned above be needed in order to resolve a situation arising from the play of the LEGACY game other games and simulations, role assumption or otherwise, may be adapted for use in conjunction with the LEGACY game system. A discussion of how this may be accomplished is included in the GAME OPERATOR'S SECTION of this booklet.

The overall effect of the LEGACY rules is the capability to establish a simulated reality of variable characteristics in which individuals or groups may act out their fantasies, perform experiments, or participate in adventures of their own devising.

ORGANIZATION

The LEGACY rules are organized in a logical and internally consistent manner which allows the players or game operator to quickly and easily access a needed rule or piece of information. As is often the case, this organization takes the form of a hierarchy of headings. Each heading denotes a portion of the LEGACY rules and seperates that portion from the remainder of the rules. A specific rule, procedure, or table can be quickly described by listing it's position relative to the hierarchy of headings, while it's location may be quickly described by listing the page or pages on which it appears.

1. The initial level of organization of the LEGACY game is the VOLUME. Each volume consists of a booklet containing a PREFACE, one or more RULES SECTIONS, and a BIBLIOGRAPHY and DESIGNER'S NOTES. This booklet constitutes VOLUME I of the LEGACY game system.

2. The second level of organization of the LEGACY game is the RULES SECTION. Each rules section consists of a variety of rules and/or information grouped together under a general topic or common factor. VOLUME I of the LEGACY game system contains five rules sections as described below.

PREFACE	The introduction, table of contents, definitions, and other information of interest to individuals unfamiliar with or seeking an introduction to the LEGACY game system.
PERSONAL ABILITIES AND CHARACTERISTICS	Rules and procedures simulating an individuals ability to percieve, integrate, and interact with his or her environment.
ENVIRONMENT	Rules and procedures simulating the environment within which the players interact.
GAME OPERATOR'S SECTION	Rules and procedures with which the game operator simulates individuals other than the players, administers the environment and personal abilities and characteristics rules, and records the cause and effect aspects of events associated with the play of the LEGACY game.
COLLECTED TABLES	A condensed collection of all the forms, tables, charts, and maps needed to play the LEGACY game.

3. The third level of organization of the LEGACY game is the SUB-SECTION. Each sub-section consists of a specific set of rules and/or information grouped together under a specific topic or common factor which constitutes a subset of the topic covered by the rules section of which it is a part. Each rules section contains several sub-sections as described in a table provided at the beginning of each rules section. Rules sections and sub-sections are also listed in the TABLE OF CONTENTS located on the following page.

4. The fourth level of organization of the LEGACY game is the RULE or TABLE. Each rule or table consists of a detailed explaination or set of information which establishes what actions and procedures may and may not be performed within the limitations of the LEGACY game system. The rules and tables contained within this booklet should be followed unless modified by the game operator or superceeded by an errata or correction sheet issued by the designer of the LEGACY game. For further information concerning the modification of rules and tables contained within the LEGACY game system see the OPERATOR'S SECTION and the DESIGNER'S NOTES.

5. The fifth level of organization of the LEGACY game is the SUB-RULE or SUB-TABLE. Each sub-rule or sub-table consists of a subset of the rule or table of which it is a part. Sub-rules and sub-tables are only used when a single rule or table is to complex to be easily understood in it's complete form, or when a rule or table is differentiated due to an outside input which may vary from circumstance to circumstance. One frequent cause of sub-tables is the inclusion of information pertaining to both HUMAN and KEYA-TEU races.

The principle method of accessing rules is the TABLE OF CONTENTS, either in it's complete form on the following page or in it's limited form at the beginning of each rules section.

The primary method of accessing a piece of information is the COLLECTED TABLES SECTION included at the end of this booklet.

- TABLE OF CONTENTS -

PREFACE SECTION	The introduction, table of contents, definitions, and other information of interest to individuals unfamiliar with or seeking an introduction to the LEGACY game system.	page **2**
INTRODUCTION	A brief description of the LEGACY game system and it's potential uses.	page **3**
ORGANIZATION	An explaination of the format used to differentiate the various parts of the LEGACY rules.	page **4**
TABLE OF CONTENTS	A listing of the names and locations of various SECTIONS and SUB-SECTIONS of the LEGACY rules.	page **5**
DEFINITIONS	A table defining the terms, abbreviations, and symbols used in the LEGACY rules.	page **6**
REMARKS	A brief set of comments from the designer intended to assist the reader in his or her initial integration of the LEGACY rules.	page **11**
PERSONAL ABILITIES AND CHARACTERISTICS SECTION	Rules and procedures simulating an individuals ability to percieve, integrate, and interact with his or her environment.	page **12**
CONSTITUTION	Rules and procedures simulating the physical and metabolic aspects of the individual.	page **13**
INTELLIGENCE	Rules and procedures simulating the perception, data storage, and learning functions of sentient organisms.	page **54**
CHARISMA	Rules and procedures simulating a variety of abilities and characteristics not necessarily related to each other.	page **61**
ENABLERS	Rules and procedures simulating the use and aquisition of skills, techniques, and artifacts.	page **63**
INTERACTIONS	Rules and procedures simulating the physical, verbal, and emotional interactions between individuals and groups.	page **67**
INFORMATION	Rules and procedures regulating the flow and exchange of information within the game.	page **73**
ENVIRONMENT SECTION	Rules and procedures simulating the environment within which the players interact.	page **76**
TERRAIN MAPPING	Rules and information pertaining to the mapping of the planetary surface.	page **77**
FLORA AND FAUNA	Rules and procedures simulating the existence and effects of plants and animals.	page **89**
CLIMATE AND WEATHER	Rules and procedures simulating the existence and effects of climate and weather.	page **93**
GEOSPHERE	Rules and procedures used to abstract the existence and effects of the overall geosphere, both past and present.	page **97**
GAME OPERATOR'S SECTION	Rules and procedures with which the game operator simulates individuals other than players, administers the ENVIRONMENT and PERSONAL ABILITIES AND CHARACTERISTICS rules, and records the cause and effect aspects of events associated with the play of the LEGACY game.	page **104**

SCENARIO LOADING	Rules and procedures which govern the ability of the game operator to modify and adapt the game environment to best suit the goals of the game operator and the players.	page **105**
PREPARATIONS	Description of a series of decisions and preparations the game operator must make prior to the beginning of a scenario.	page **114**
OPERATING	Rules and procedures governing the actual play of the LEGACY game, including a detailed discription of the game operator's activities before, during, and after a game session.	page **117**
INTENTIONALITY	Rules and procedures simulating the motivational factors effecting both player and nonplayer characters.	page **123**
COLLECTED TABLES SECTION	A condensed collection of all the forms, tables, charts, and maps needed to play the LEGACY game.	page **127**
DESIGNER'S NOTES	A commentary from the designer on the process of creating the LEGACY rules and the strengths and weaknesses of the LEGACY game. Includes suggestions for adapting other games for use in conjunction with the LEGACY rules.	page **145**
BIBLIOGRAPHY	A listing of sources used by the designer in the creation of the LEGACY game system.	page **157**
QUESTIONAIRE	A series of questions to be filled out by the users of the LEGACY rules to aid in the evaluation of the LEGACY game system.	page **159**

DEFINITIONS

The hierarchy of possible scale levels within the LEGACY game are represented by letters of the Greek alphabet as indicated below. Further information can be found within the TERRAIN MAPPING SUB-SECTION.

Greek letter	Scale level	Mult.	Metric equivelent
Α ALPHA	23	10^{-12}	1 picometer
Β BETA	22	10^{-9}	1 nanometer
Γ GAMMA	21	10^{-6}	1 micrometer
Δ DELTA	20	10^{-3}	1 millimeter
Ε EPSILON	19	10^{-2}	1 centimeter
Ζ ZETA	18	10^{-1}	1 decimeter
Η ETA	17	1	1 meter
Θ THETA	16	10^{1}	10 meters
Ι IOTA	15	10^{2}	100 meters
Κ KAPPA	14	10^{3}	1 kilometer
Λ LAMBDA	13	10^{4}	10 kilometers
Μ MU	14	10^{5}	100 kilometers
Ν NU	14.5	$10^{5.5}$	500 kilometers

Greek letter	Scale level	Multi.	Metric equivelent
Ξ XI	11	10^{6}	1 megameter
Ο OMICRON	10	10^{7}	10 megameters
π PI	9	10^{8}	100 megameters
Ρ RHO	8	10^{9}	1 gigameter
Σ SIGMA	7	10^{12}	1 light year(1)
Τ TAU	6	10^{13}	10 light Yrs.
Υ UPSILON	5	10^{14}	100 light Yrs.
Φ PHI	4	10^{15}	1000 light Yrs.
Χ KHI	3	10^{16}	10000 light Yrs.
Ψ PSI	2	10^{18}	1000000 Lt. Yrs.
Ω OMEGA	1	10^{25}	10000000000000 Light years

(1) The SIGMA scale level actually represents .946 light years, but this has been rounded up for convenience.

The capability to quickly and effeciently alter scale levels is made possible by the extensive use of metric units to measure distance, mass, volume, area, and time. Standard prefixes are used to indicate the order of magnitude of a measurement.

Prefix	Definition	Mult.	Prefix	Definition	Mult.	Prefix	Definition	Mult.
TERA-	trillion	10^{12}	HECTO-	hundred	10^{2}	MILLI-	one thousandth	10^{-3}
GIGA-	billion	10^{9}	DEKA-	ten	10^{1}	MICRO-	one millionth	10^{-6}
MEGA-	million	10^{6}	DECI-	one tenth	10^{-1}	NANO-	one billionth	10^{-9}
KILO-	thousand	10^{3}	CENTI-	one hundredth	10^{-2}	PICO-	one trillionth	10^{-12}

Time is measured in the LEGACY game using a metric system to facilitate transfer of information between scale levels. Every effort has been made to make the metric time measuring system as close to what you are now familiar with as possible.

Metric expression	Time Units	Earth time	Metric expression	Time Units	Earth time
1 Tera-unit	1x10^{12} units	2,740,000 years	1 Deka-unit	10 units	15 minutes
1 Giga-unit	1x10^{9} units	2,740 years	1 unit	1 unit	1.5 minutes
1 Mega-unit	1x10^{6} units	2.74 years	1 Deci-unit	.1 unit	10 seconds
1 Kilo-unit	1000 units	1 day	1 Centi-unit	.01 unit	1 second
1 Hecto-unit	100 units	2.5 hours	1 Milli-unit	.001 unit	.1 second

Metric to English and English to Metric equivelents for measures of distance, volume, and mass are included here to aid in the understanding of the user of the LEGACY game and to serve as a ready reference should the need for conversions arise.

DISTANCE

Metric	English	English	Metric
1 kilometer	= 0.621 miles	1 mile	= 1.610 Kms.
1 meter	= 1.094 yards	1 yard	= 0.915 meters
1 meter	= 3.281 feet	1 foot	= 0.305 meters
1 centimeter	= 0.394 inches	1 inch	= 2.54 Cms.
1 millimeter	= 0.039 inches	1 inch	= 25.4 Mms.
1 light year	= 9.46x10^{12} Kms.	= 5.88x10^{12} miles	

VOLUME

Metric	English	English	Metric
1 meter^3	= 1.31 yards^3	1 yard^3	= 0.76 meters^3
1 liter	= 1.06 quarts	1 quart	= 0.951 liters

MASS

1 metric ton = 1.1 (U.S.) 1 ton = 0.909 metric ton
1 kilogram = 2.2 pounds 1 pound = 0.45 kilograms
1 gram = 0.035 ounces 1 ounce = 28.13 grams

Abbreviations are frequently used to conserve space in tables, charts, and other displays of information. The abbreviations used in the LEGACY game system are listed below. For definitions of the abbreviated words see the definition of terms table on the following page and the relevant sections of the LEGACY rules.

ABBREVIATIONS

Tm.	Terameter	Mc.	Micrometer	Dcu.	Deci-unit	INT.	INTELLIGENCE
Gm.	Gigameter	Nm.	Nanometer	Cnu.	Centi-unit	Mem.	Memory
Mg.	Megameter	Pc.	Picometer	Mlu.	Milli-unit	Abs.	Abstract thought
Km.	Kilometer	Tru.	Tera-unit	CON.	CONSTITUTION	Prt.	Practical thought
Hm.	Hectometer	Ggu.	Giga-unit	Str.	Strength	Lea.	Learning and Integration
Dk.	Dekameter	Mgu.	Mega-unit	End.	Endurance	Ref.	Reflex
M.	Meter	Klu.	Kilo-unit	Dex.	Dexterity	CHR.	CHARISMA
Dm.	Decimeter	Hcu.	Hecto-unit	Dis.	Disease Resistence	Sal.	Salience
Cm.	Centimeter	Dku.	Deka-unit			Ldr.	Leadership
Mm.	Millimeter	Unit	Unit	Phy.	Physical Effeciency	Emp.	Empathy

Flo.	Flora Ability	E	East	Cmpgn.	Campaign	Maint.	Maintainence
Fau.	Fauna Ability	W	West	Comm.	Communication	Mstlm.	Moisture limit.
Dsn.	Danger Sense	N	North	Cond.	Condition	MR	Movement Rate
Pcg.	Precognition	S	South	Cult.	Cultural	Prst.	Parasitic
Mut.	Mutation	NE	Northeast	Envir.	Environment	Req.	Requirement
Intnt.	Intentionality	NW	Northwest	Excpt.	Exception	Sess.	Game Session
A.M.	Midnight to noon	SE	Southeast	Gen.	Geneology	SL	Scale Level
P.M.	Noon to midnight	SW	Southwest	Geo.	Geological	Soc.	Social
Yr.	Year	Antbi.	Antibiosis	HGV	Hunting and gathering value	Symbi.	Symbiotic
Hr.	Hour	Appl.	Application	Hist.	Historical	Sys.	System
Min.	Minute	Apprx.	Approximately			Tchn.	Technique
GR	Growth Rate	Altlm.	Altitude limit.	HR	Habitation range	Templm.	Temperature Limit.
DR	Decay Rate	Art.	Artifact	Integ.	Integration	Tech.	Technology
HL	Halflife	Ast.	Astronomical	Lang.	Language	Var.	Variable
EHL	Estimated Halflife	Bio.	Biological	Limit.	Limitation	W	Unknown Quantity

Symbols are also frequently used to conserve space in tables, charts, and other displays of information. The symbols used in the LEGACY game system are listed below. For definitions of the symbolized words or concepts see the definition of terms on the following page and the relevant sections of the LEGACY rules. The map symbols and graphics used in mapping terrain are listed and defined in the TERRAIN MAPPING SUB-SECTION and are not repeated here in the interests of conserving space.

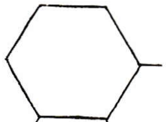
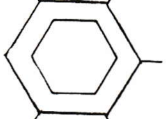
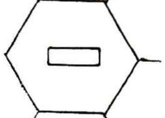
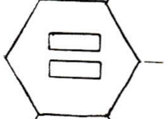
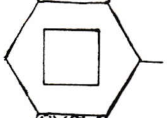
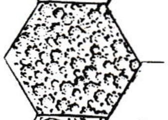
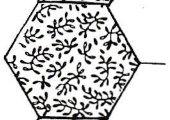
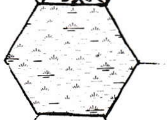
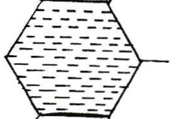
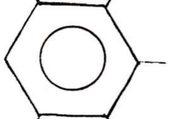
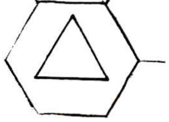
SYMBOLS

*	Information Level	①	Annual	⌒⋀⌒	Omnivore	Ap	A potential
+	Addition to, positive	②	Biennial	///	Elevore	Aa	A actualized
-	Subtraction from, negative	♃	Perenial	⑩	Decenial	∿	Organivore	Bp	B potential
=	Equal to	⑩	Decenial	°/oo	Saline	Ba	B actualized
♂	Male organism	(100)	Cenntenial	☄	Comet	Cp	C potential
♀	Female organism	(?)	Special Occurence	⦶	Rain	Ca	C actualized
☿	Hermaphroditic organism	☉	Solar	⊗	Snow	Dp	D potential
o|o	Born	◎	Aquatic	▥	Flood	Da	D actualized
├┤	Disease	⊕	Sedimentic	⊠	Snow on ground	Ep	E potential
≻≺	Accident	Ⓐ	Airobic	▲	Hail	Ea	E actualized
⬭	Aquisition	⊥	Fixed	△	Sleet	Xp	X potential
✝	Death	↗	Mobile	▤	Ice on ground	Xa	A actualized
-△-	Temporary relationship	⚥	Unisexual	∨	Frostwork	Yp	Y potential
-○-	Permenent relationship	♂-♀	Monecious	⊔	Hoarfrost	Ya	Y actualized
-□-	Cultural relationship	♂:♀	Dioecious	≡	Fog	Zp	Z potential
→	Parantage	⚤⚤	Polygamous	ø	Haze, dust, smoke	Za	Z actualized
-/ /-	Unusual relationship	△	Trisexual	↯	Sheet lightening	Wp	? potential
⊣⊢	Periodic Relationship	⊞	Quadrisexual	⌐↯	Thunder storm	Wa	? actualized
═	Interaction	⋀⋀⋀	Carnivore	⇨	Wind	?	Unknown
-△-	Abstract relationship	⌒⌒⌒	Herbivore	☁	Cloud	)(	Interface

TERRAIN SYMBOL DEFINITIONS

The Terrain symbols represented below comprise a partial listing of the various symbols and colors used in the terrain mapping portions of the LEGACY game. For a complete listing with associated TRAIL BREAKING ACTIVITY STATE costs see the Terrain Mapping SUB-SECTION in the ENVIRONMENT SECTION of the LEGACY rules.

Colors indicate water and vegetation types. Symbols indicate additional TRAIL BREAKING (movement point) costs and special information. The hex side symbols and colors are not included in this listing of terrain symbol definitions due to a lack of space and their similarity to the hex symbols and colors.

HEX COLOR	DEFINITION	HEX SYMBOL	DEFINITION
LIGHT BLUE	CONTINENTAL SHELF - shallow salt water, underwater reefs and ridges.		CLEAR - no additional TRAIL BREAKING costs besides vegetation.
DARK BLUE	OCEAN - salt water deeper than 100 meters.		FERTILE/ABUNDANT - vegetation or other terrain type that is unusually concentrated.
MEDIUM BLUE	FRESH WATER - indicates lakes, ponds, rivers and other fresh water.		ROUGH - terrain containing many changes in elevation. Hilly.
YELLOW	WASTELAND/DESERT - the lack of any vegetation and usually water.		BROKEN - terrain containing extreme changes in elevation.
BROWN	BARREN - limited vegetation and water.		MOUNTAINOUS - terrain containing mountains, cliffs, and canyons.
LIGHT GREEN	LIGHT VEGETATION - grassland, savanna, and other initial vegetation types.		WOODED - terrain containing trees and forest ecosystems.
MEDIUM GREEN	MEDIUM VEGETATION - dense grasslands, light forest and other vegetation types.		JUNGLE - terrain containing a thick growth of brush, vines, and creepers.
DARK GREEN	HEAVY VEGETATION - dense forests, jungle, and marsh vegetation types.		MARSH/SWAMP - terrain containing a shallow water and marsh ecosystems.
WHITE	SNOW/ICE - snow, ice, and other low temperature phenomena covering the terrain.		CULTIVATED - terrain currently under some form of intentional cultivation.
GREY	HIGH ALTITUDE VEGETATION - plants capable of growing at high altitudes.	ALPHA-NUMERIC	Indicates the hex identity, resources, and altitude as described in the terrain mapping SUB-SECTION.
BLACK	IMPASSIBLE - blocked to movement.		POPULATION CENTER - a density of sentient inhabitation.
RED	GEOLOGICALLY ACTIVE - prone to or experiencing earthquakes or volcanoes.		ADDITIONAL MOVEMENT COST - represents some additional difficulty to movement.

Symbols and colors frequently appear together indicating composite terrain types. A listing of the unique characteristics of many of these combinations can be found in the terrain mapping SUB-SECTION located in the ENVIRONMENT SECTION of the LEGACY rules.

DEFINITION OF TERMS

Several words and terms are used repeatedly throughout the LEGACY rules without the benifit of a definition or explaination within the body of the rules themselves. These are terms which will probably already be familiar to the experienced gamer, but their importance to a complete understanding of the rules requires that they be defined in some readily accessable space for the benifit of those unfamiliar with them.

ACTION or ACTIVITY - The players of the LEGACY game initiate actions and activities using the various rules and procedures contained in the different rules SECTIONS. An action or activity constitutes any explaination or direction from the player to the game operator concerning the movement, lack of movement, thoughts, intentions, actions, perceptions, or interactions of any kind of that player's character in the game. Any time the LEGACY rules are consulted or used because of a player initiated occurence, an action or activity is occuring.

CALCULATE - Whenever an action or activity made by a player can be resolved simply by mathmatically manipulating a set of numbers and possibly consulting a table without rolling dice, that action or activity is said to be calculated. Basically a resolution to an event which could be made by either the player or the game operator because no special decision, interpretation, or hidden information is used.

COURSE OF PLAY - The sequence of actions and activities and their resolutions which constitute the actual play of the LEGACY game. This also includes the record keeping, rules interpretations, breaks for refreshments, and all of the other normally occuring functions which are associated with playing the game.

DETERMINE - Whenever an action or activity made by a player is subject to multiple outcomes or interpretations not clearly specified by the rules the game operator must make a determination. Basically a resolution to an event which must be made by the game operator and may also involve the rolling of dice and the consulting of complicated probability tables.

DIE ROLL - Percentile dice, two(2) twenty (20) sided icosihedral dice each with possible outcomes ranging from one to ten (1-0) are used to generate random numbers. These random numbers are used frequently in the course of play to simulate the effects of uncontrolable or unexplainable forces on the result of an action or activity. The most frequently simulated unexplainable force is luck. Occasionally just one of the percentile dice will be used to generate a random number ranging from one to ten (1-0). When the percentile dice are used together they are colored differently, one color always representing the tens place and the other color always representing the ones place. In this way one die indicates a range of random numbers between ten and ninety, while the other percentile dice indicates a range of random numbers between zero and nine. In the case of a double zero (00) this represents one hundred, the highest possible result, while a zero one (01) represents one, the lowest possible outcome.

DIE ROLL MODIFIER - Frequently the environment, personal abilities and characteristics of the players, or other factors will increase the chances of s certain range of outcomes while decreasing the chances of certain other outcomes or results. This is most frequently represented by a change in column on a table but often it is represented by an addition or subtraction from the players or the game operators die roll. These additions or subtractions occur after the dice have been rolled, but are calculated or determined before the dice are rolled. Unless otherwise noted in the specific rule causing the addition or subtraction die roll modifiers are manditory and may not be altered, increased or decreased by the players or the game operator.

EFFECT - When dice are rolled, or a result calulated or determined there will often be a series of consequences to the player or the player's environment which are called effects. Effects may take the form of an alteration to the players personal abilities and characteristics, perceptions of his/her environment, ENABLERS, or a variety of other possibilities. Effects will be described and enforced by the game operator.

EVENT - Any combination of action or activity and it's resolution which has already occured. Events may effect the present, but they occured at some point in the past course of play.

GAME OPERATOR - The individual or individuals who make determinations, enforce effects, and maintain the internal logic and consistency of the LEGACY game. Game operator's play the game also, but in a different manner than the players and with a different impact.

NON-PLAYER CHARACTER - Any organism simulated by the rules and procedures of the LEGACY game that is not controlled directly by a player. Usually in the control of the game operator or a preset pattern of actions and activities determined by the game operator.

PLAYER CHARACTER - Any organism simulated by the rules and procedures of the LEGACY game that is directly controlled by a player.

RESULT - The outcome of a table or action or activity. Some results are calculated while others must be determined by the game operator using a combination of rules and common sense.

SCALE LEVEL - The LEGACY game contains a feature allowing the game operator and the players to resolve the actions and activities occuring through the normal course of play on a variety of time and distance scale levels. Basically these rules contain the necessary information to resolve the actions of players and non-players on time scale levels ranging between .01 unit (1 second) to 10,000 units (10 days) and distance scale levels of 1 meter to 1,000 kilometers.

SEQUENCE OF PLAY - Certain of the LEGACY rules, most notably COMBAT must be conducted in a specialized series of steps with each action following each other action in a highly structured and predetermined order. Whenever a sequence of play is included in rules contained in the LEGACY game they must be followed carefully and completely in order to perserve the accuracy of the simulation.

TURN - A turn is a variable period of time in which the players and non-players take actions and initiate activities. The time scale or definition of a turn may change frequently during the course of play, but unless changed the events of the game are strictly regulated by the seperation of action into discrete periods of time called turns.

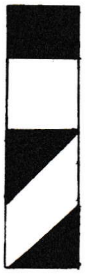
REMARKS

The LEGACY rules are complex, and no matter what precautions are taken by the designer and the reader there are likely to major areas of confusion and misunderstanding. To alleviate this problem as much as possible several steps have been undertaken to try to organize the LEGACY rules in a manner best suited to both initial understanding and continued use while playing the game itself. Attention to this organization and the suggestions offered below for the initial reading of the rules will eliminate substantial confusion and frustration. I strongly encourage persons reading these rules for the first time, wether experianced gamers or not, to follow the suggestions listed below.

1. Read all of the introductory paragraphs that begin each rules SECTION, SUB-SECTION, and related set of rules, even if they seem repititous. It is very helpful in putting the contents of that portion of the rules in context.

2. If a first reading of an introduction or a rule yields no comprehension, try rereading it or trying to imagine an example in which the rule applies combined with rules already understood. Pay careful attention to the examples, as many a confusing set of rules turn out to be quite simple when examined while functioning rather than being described in the dry and repititous manner of rule writting.

3. Along the right hand border/margin of each page containing rules is a bar of pattern which provides important information to the reader and game user.



All of the basic or simple rules to the LEGACY game are represented and indicated by a solid black bar as shown on the immediate right.

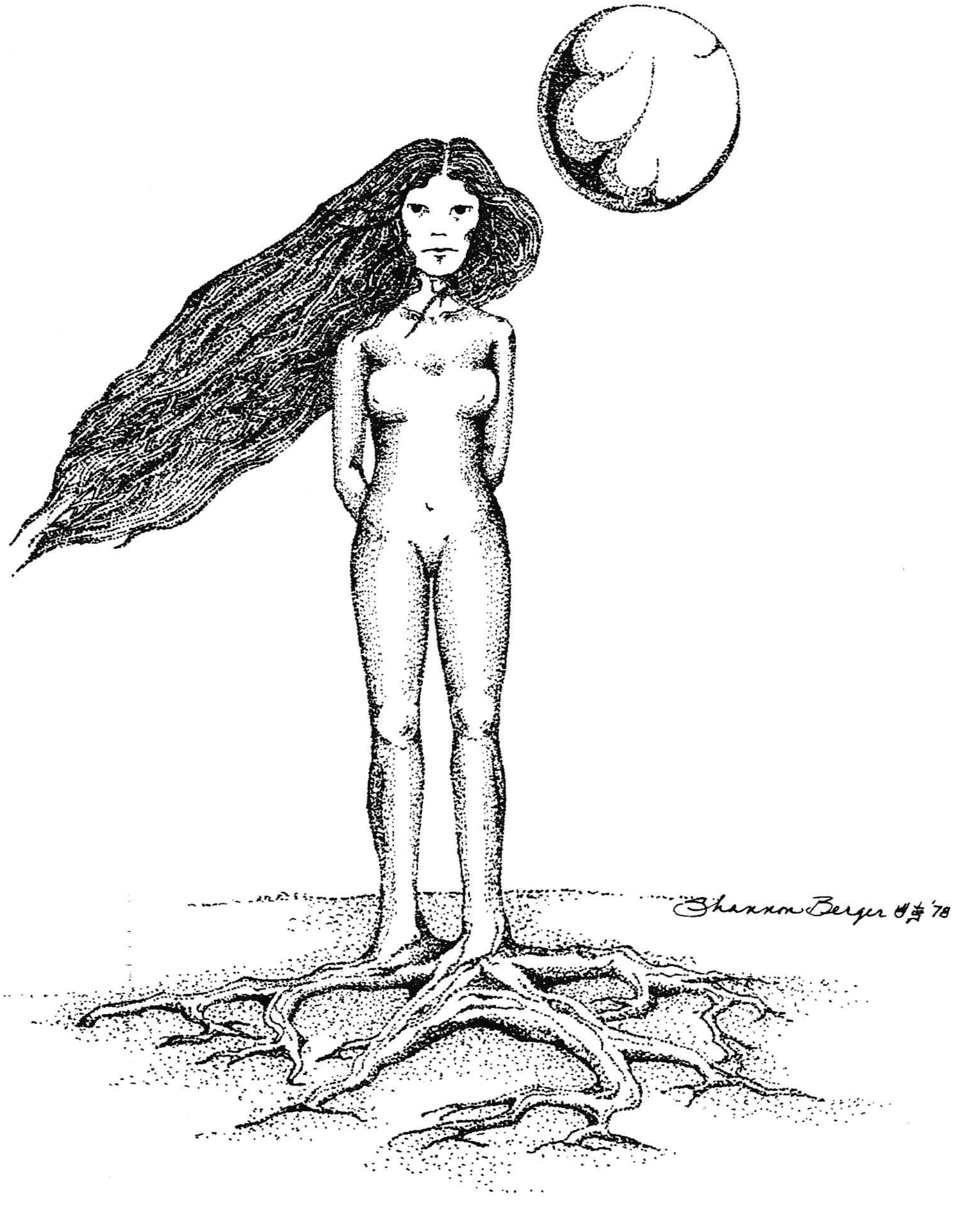
The examples of play are all represented or indicated by a solid bar of white as shown on the immediate right.

All of the advanced or complex rules of the LEGACY game and all of the often confusing and opaque rules describing how to transfer between the basic or simple rules and the advanced or complex rules are represented or indicated by a diagonally striped bar of black and white as shown on the immediate right.

Together these coded margins form a running index of the type and nature of the rule or procedure being explained or described on that portion of the page.

I strongly reccomend that any person first reading these rules only read the basic rules as indicated by the solid black margin, and the examples associated with the basic rules. Only after all of the LEGACY basic rules have been read and at least roughly understood should the individual attempt to go back an read the advanced rules and related examples which s/he skipped the first time through. To not follow this reccomendation is to court confusion, frustration, and non-understanding of the LEGACY rules. Many of the advanced rules are so intricate and the examples so odd or unexpected, that even persons with substantial role assumption gaming experience have encountered severe difficulties reading them without being sufficiently well versed in the basic rules indicated by the solid black margin.

PERSONAL · ABILITIES · AND · CHARACTERISTICS ·


Shannon Berger '78

Personal Abilities and Characteristics

- CONTENTS -

CONSTITUTION	Rules and procedures simulating the physical and metabolic aspects of the individual.	page **13**
INTELLIGENCE	Rules and procedures simulating the perception, data storage, and learning functions of sentient organisms.	page **54**
CHARISMA	Rules and procedures simulating a variety of abilities and characteristics not necessarily related to each other.	page **61**
ENABLERS	Rules and procedures simulating the use and aquisition of skills, techniques, and artifacts.	page **63**
INTERACTIONS	Rules and procedures simulating the physical, verbal, and emotional interactions between individuals and groups.	page **67**
INFORMATION	Rules and procedures regulating the flow and exchange of information within the LEGACY game.	page **73**

CONSTITUTION

1.11 CONSTITUTION VALUE

Each individual organism possesses a set of numerical characteristics which indicate that organisms capacity to perform the various actions possible within the LEGACY game system. The first of these is the CONSTITUTION VALUE which serves as a numerical description of the physical and metabolic capabilities of an organism.

The CONSTITUTION VALUE is subdivided into CONSTITUTION LEVELS which provide specific capabilities and limitations within which the organism must function. The CONSTITUTION VALUE is a decimal number ranging from 0 to 200 which may be gradually increased or decreased as a result of experience or training. The CONSTITUTION LEVEL is a category of ability based upon an individuals CONSTITUTION VALUE and an individuals STATUS. CONSTITUTION LEVELS may be temporarily increased or decreased as a result of changes in STATUS, the effects of drugs or disease, and the emotional state of the individual. CONSTITUTION LEVELS may be permenantly increased or decreased as a result of increases or decreases in the individuals CONSTITUTION VALUE.

1.11.1 An individuals CONSTITUTION LEVEL must always reflect the individuals CONSTITUTION VALUE as indicated on the CONSTITUTION table below unless it is being currently effected by a STATUS, drug, disease, emotion, or other game operator authorized input.

- CONSTITUTION TABLE -

HUMAN			KEYA-TEU		
CON. Value	CON. Level	Definition	CON. Value	CON. Level	Definition
0	Death	Individual may initiate no actions.	0	Death	Individual may initiate no actions.
1-5	Extremely Poor	Presence of severe mutation, abnormality or defect.	1-10	Extremely Poor	Presence of paralysis or severe mutation, abnormality or defect.

6-20	Poor	Below average physical and metabolic capability.	11-30	Poor	Below average physical and metabolic capability.
21-80	Average	Statistically prevailent physical and metabolic capability.	31-70	Average	Statistically frequent physical and metabolic capability.
81-95	Good	Above average physical and metabolic capability.	71-90	Good	Above average physical and metabolic capability.
96-100	Exceptional	Presence of one or more CONSTITUTION SPECIAL CAPABILITIES.	91-120	Exceptional	Presence of two or more CONSTITUTION SPECIAL CAPABILITIES or TALENTS.
101-200	Extreme	Presence of three or more CONSTITUTION SPECIAL CAPABILITIES.	121-200	Extreme	Presence of five or more CONSTITUTION SPECIAL CAPABILITIES or TALENTS.

1.11.2 An individuals CONSTITUTION LEVEL may be temporarily increased or decreased due to the effect of STATUS, drugs, disease, emotion, or other game operator authorized inputs. The degree and circumstances associated with such a temporary increase or decrease are described in the appropriate rules SUB-SECTIONS. Temporary increases or decreases to the CONSTITUTION LEVEL are always associated with a "DURATION OF EFFECT" which indicates exactly how long a period of time must pass before the CONSTITUTION LEVEL returns to it's original level.

1.11.3 An individuals CONSTITUTION VALUE may be permenantly increased or decreased due to the effect of STATUS, drugs, disease, emotion, or other game operator authorized inputs. The degree and circumstances associated with such a permenant increase or decrease are described in the appropriate rules SUB-SECTIONS. Permenant increases or decreases to the CONSTITUTION VALUE are never associated with a "DURATION OF EFFECT", and are considered permenant and lasting alterations to the CONSTITUTION VALUE. If the increase or decrease to the CONSTITUTION VALUE triggers an increase or decrease to the individuals CONSTITUTION LEVEL, then that alteration to the individuals CONSTITUTION LEVEL is also considered permenant.

A list of the causes and effects of all permenant increases or decreases to the CONSTITUTION VALUE should be kept for each individual. Certain increases and decreases to the CONSTITUTION VALUE cannot be counteracted or cummulatively effected by certain other causes of increase or decrease. Before the effects of any permenant increase or decrease to the CONSTITUTION VALUE of an individual are recorded the list of prior permenant increases and decreases should be consulted. If the list indicates a prior permenant alteration to the individuals CONSTITUTION VALUE which is specifically mentioned in the rule causing that increase or decrease, then the instructions contained within that rule should be followed. This will usually result in the negation or lack of any effect in the individuals CONSTITUTION VALUE due to the increase or decrease in question.

1.11.4 Whenever an individual possesses a CONSTITUTION LEVEL, wether temporary or permenant, other than Poor, Average, or Good additional information must be determined. This additional information is determined using a table and a pair of percentile dice. The dice are rolled, and the resulting number is cross indexed on the appropriate table below. The resulting information is then applied to the individual in question and is recorded on his or her PLAYER CHARACTER RECORD SHEET.

- EXTREMELY POOR CONSTITUTION LEVEL -

HUMAN			KEYA-TEU		
Die Roll	Result	Explaination	Die Roll	Result	Explaination
1-10	Sensory deprivation	Lack of all sensory capabilities. Blind, deaf, no smell or touch.	1-5	Total paralysis	Lack of capability to move limbs or torso in any manner whatsoever. Does not include the head.
11-25	Missing body part	Lack of a limb or organ as determined by the game operator.	6-10	Partial paralysis	Lack of capability to move portion of body as determined by game operator.

26-50	Deformation - deformed or malfunctioning body part as determined by the game operator.
51-70	Defect - A metabolic disfunction or physical abnormality determined by the game operator. May or may not effect the individuals CONSTITUTION capabilities.
71-80	Disease - An affliction or metabolic imbalance effecting the individuals CONSTITUTION capabilities.
81-90	Mutation - A change or alteration in the function or appearence of a body part or organ as determined by the game operator.
91-97	No effect - No special condition or abnormality is associated with the Extremely Poor CONSTITUTION LEVEL.
98-99	Presence of one CONSTITUTION SPECIAL CAPABILITY as determined by the game operator.
100	Presence of three CONSTITUTION SPECIAL CAPABILITIES as determined by the game operator.
101+	Presence of special mutation - A change or alteration in the function or appearence of a body part or organ as determined by the game operator which has a greater likelyhood of benifitting the individual.

11-20	Missing body part - Lack of a limb or organ as determined by the game operator.
21-40	Deformation - Deformed or malfunctioning body part as determined by the game operator.
41-70	Defect - A metabolic disfunction or physical abnormality determined by the game operator.
71-90	Disease - An affliction or metabolic imbalance effecting the individuals CONSTITUTION capabilities.
91-96	Variation - A change or alteration in the function or appearence of a body part or organ as determined by the game operator which does not impair the CONSTITUTION capabilities of the individual.
97-99	Mutation - A change or alteration in the function or appearence of a body part or organ as determined by the game operator.
100	No effect - No special condition or abnormality is associated with the Extremely Poor CONSTITUTION LEVEL.

The tables and rules effecting the game operators determinations mentioned above are included in the SCENARIO LOADING SUB-SECTION of the LEGACY rules. The nature and effects of disease are described later in this CONSTITUTION rules SUB-SECTION.

- EXCEPTIONAL CONSTITUTION LEVEL -

HUMAN

Die Roll	Result	Explaination
1-5	One CONSTITUTION SPECIAL CAPABILITY.	Die roll modifier = -5.
6-15	One CONSTITUTION SPECIAL CAPABILITY.	Die roll modifier = -1
16-40	One CONSTITUTION SPECIAL CAPABILITY.	Die roll modifier = +1
41-70	One CONSTITUTION SPECIAL CAPABILITY.	Die roll modifier = +3.
71-90	One CONSTITUTION SPECIAL CAPABILITY.	Die roll modifier = +4.
91-100	Two CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = -1.
101+	Two CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +1.

KEYA-TEU

Die Roll	Result	Explaination
1-10	Two CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = -1.
11-30	Two CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +1
31-50	Two CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +3.
51-80	Two CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +5
81-99	Three CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +1.
100	Three CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +3.

The table to which the die roll modifiers listed on the preceeding page apply is the CONSTITUTION SPECIAL CAPABILITIES TABLE contained within the SCENARIO LOADING SUB-SECTION of the LEGACY rules. This table indicates which CONSTITUTION SPECIAL CAPABILITIES an individual recieves under a variety of circumstances. The same table is used to determine CONSTITUTION SPECIAL CAPABILITIES for both the Exceptional and the Extreme CONSTITUTION LEVELS, though seperate tables are used for Human and Keya-Teu.

The CONSTITUTION SPECIAL CAPABILITIES rules are used only in conjunction with the CONSTITUTION VALUE and CONSTITUTION LEVEL. If the advanced CONSTITUTION SUB-VALUE rules are used instead, the CONSTITUTION SPECIAL CAPABILITIES can be translated into additions to and subtractions from the individuals CONSTITUTION SUB-VALUES as described on the following page.

- EXTREME CONSTITUTION LEVEL -

HUMAN			KEYA-TEU		
Die Roll	Result	Explaination	Die Roll	Result	Explaination
1-10	Three CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = -3.	1-20	Five CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = -1.
11-30	Three CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = -1.	21-50	Five CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +1.
31-60	Three CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = 0.	51-70	Five CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +2.
61-80	Three CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +1.	71-85	Five CONSTITUTION SPECAIL CAPABILITIES.	Die roll modifier = +3.
81-95	Four CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = -1.	86-95	Six CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = 0.
96-100	Four CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +1	96-99	Six CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = +2
101+	Five CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = -2.	100	Seven CONSTITUTION SPECIAL CAPABILITIES.	Die roll modifier = -1.

Though the probability of a player achieving a given CONSTITUTION SPECIAL CAPABILITY is controled by the game operator by the way in which s/he designs the CONSTITUTION SPECIAL CAPABILITIES TABLE, the possible CONSTITUTION SPECIAL CAPABILITIES are listed and described below.

If, by rolling dice on the CONSTITUTION SPECIAL CAPABILITIES TABLE, the same result occurs more than once the effect of that CONSTITUTION SPECIAL CAPABILITY is multiplied by the number of times the individual recieved that particular result.

EXAMPLE: While rolling dice on the CONSTITUTION SPECIAL CAPABILITIES TABLE a player recieves one EXTRA DEXTERITY result and two EXTRA STRENGTH results. The Total CONSTITUTION SPECIAL CAPABILITIES of that individual would be 1xEXTRA DEXTERITY, 2xEXTRA STRENGTH. In all circumstances where the STRENGTH of the individual was an input it would be treated as twice or double EXTRA STRENGTH and that individual would always recieve any benefits resulting from the additional EXTRA STRENGTH result.

Members of the Keya-Teu race may also recieve CONSTITUTION SPECIAL TALENTS. These SPECIAL TALENTS are also described below and on the following page, but they are not translated into CONSTITUTION SUB-VALUES when using the CONSTITUTION SUB-VALUE rules as are CONSTITUTION SPECIAL CAPABILITIES. Instead they are used in the identical manner and have similiar or identical effects when used in conjunction with either the basic CONSTITUTION LEVEL rules or the advanced CONSTITUTION SUB-VALUE rules.

- CONSTITUTION SPECIAL CAPABILITIES -

EXTRA STRENGTH - A greater capability to exert force against physical objects. Basic ACTIVITY die roll modifier = +10. Basic ABILITY die roll modifier = +1.

EXTRA ENDURANCE - A greater capability to engage in activities over extended periods of time. Basic ACTIVITY die roll modifier = +5. Basic ABILITY die roll modifier = +2.

EXTRA DEXTERITY - A greater capability to control the exertion of force against physical objects. Basic ACTIVITY die roll modifier = +3. Basic ABILITY die roll modifier = +5.

EXTRA SPECIFIC DISEASE RESISTENCE - An increased capability to resist a specific disease. The disease may be determined either by the game operator or by using the DISEASE OCCURENCE TABLE located on page 48 of the CONSTITUTION SUB-SECTION. Disease resistence die roll modifier = +30 for one (1) specific disease.

EXTRA GENERIC DISEASE RESISTENCE - An increased capability to resist a family of related diseases. The family of diseases may be determined by the game operator or by using the DISEASE OCCURENCE TABLE located on page 48 of the CONSTITUTION SUB-SECTION. Disease resistence die roll modifier = +20 for one (1) specific family of diseases.

EXTRA DISEASE RESISTENCE - An increased capability to resist disease. Disease resistence die roll modifier = +10.

EXTRA PHYSICAL EFFICIENCY - An increase in the general health and hardiness of an individual. Basic RECOVERY die roll modifier = +10. METABOLIC STATUS modifier = +1.

- CONSTITUTION SPECIAL TALENTS -
(Keya-Teu only)

SPECIAL ACTIVITY POINT RESERVE - Increases the total number or ACTIVITY POINTS AVAILABLE to the individual by 1.0. May be accessed and the ACTIVITY POINT or any fraction of the ACTIVITY POINT used by the individual on demand.

CYCLICAL DISEASE RESISTENCE - An increased capability to resist disease. Die roll modifiers vary in accordence to a pre-established pattern as follows; Disease resistence die roll modifier = +50 for 1 hecto-unit (2.5 hours) +30 for 3 Hcu. (7.5 Hrs.) +20 for 6 Hcu. (15 Hrs.) +10 for 2 kilo-units (2 days) +5 for 7 Klu. (7 days) +1 for 20 Klu. (20 days) 0 for 70 Klu. (70 days) and -10 for .9 mega-units (2.47 years, 901 days). The entire cycle requires 1 Mgu. (2.74 years) to complete, and at the completion of one cycle a new cycle begins at the +50 die roll modifier.

ACTIVITY POINT AWARNESS - The capability to judge the total ACTIVITY POINTS AVAILABLE to an individual at any given time. At the time this SPECIAL TALENT is obtained by an individual the game operator rolls a single percentile die. The result multiplied by ten (10) equals the maximum possible error to which the ACTIVITY POINT judgement is subject to. The lower the number rolled, the more accurate or precise the judgement. The die roll result is kept secret from the player possessing the ACTIVITY POINT AWARNESS TALENT, and each time the individual uses it the game operator supplies him/her with a number of ACTIVITY POINTS AVAILABLE to the individual in question which incorporates the margin of error indicated by the die roll.

EXAMPLE: An individual with the ACTIVITY POINT AWARNESS TALENT attempts to judge the total number of ACTIVITY POINTS AVAILABLE to an opponent during a battle. Unknown to the individual the game operator had previously rolled a single die and determined that the margin of error for that individual was 30%. If the opponent actually possessed 10 ACTIVITY POINTS the game operator could report to the individual using the TALENT that the opponent had ACTIVITY POINTS AVAILABLE to him/her equal to 7, 13, or any number of ACTIVITY POINTS inbetween.

The choice of how accurate to make a judgement within the limitations of the margin of error is up to the game operator. I suggest a die roll serving as a rough indicator of the individuals capability at the moment of judgement. The closer the die roll is to 50, the more accurate the judgement. If the number is higher than 50, the judgement will be higher, if the number is lower than 50 the judgement will tend to be low. This is left to the discretion of the game operator, however.

- CONSTITUTION SPECIAL CAPABILITIES CONVERSION TABLE -

EXTRA STRENGTH = +1 to STRENGTH SUB-VALUE

EXTRA DEXTERITY = +1 to DEXTERITY SUB-VALUE

EXTRA DISEASE RESISTENCE = +2 to DISEASE RESISTENCE SUB-VALUE

EXTRA ENDURANCE = +1 to ENDURANCE SUB-VALUE

EXTRA PHYSICAL EFFICIENCY = +1 to PHYSICAL EFFICIENCY SUB-VALUE

EXTRA SPECIFIC DISEASE RESISTENCE = +1 to DISEASE RESISTENCE SUB-VALUE

EXTRA GENERIC DISEASE RESISTENCE = +1 to DISEASE RESISTENCE SUB-VALUE

1.11.5 An individuals CONSTITUTION LEVEL serves as an indicator of the total number of ACTIVITY POINTS AVAILABLE to that individual. These ACTIVITY POINTS form a pool from which the individual removes points in accordance with the actions and activities in which the individual participates. Different actions and activities require different numbers of ACTIVITY POINTS to perform, and the total number and intensity of actions and activities performed by an individual is reflected by the comparison of the total number of ACTIVITY POINTS AVAILABLE to the individual at a given time with the total possible number of ACTIVITY POINTS AVAILABLE to the individual under the circumstances of complete health and rest.

The rules describing how ACTIVITY POINTS are obtained, expended, and recovered are located on pages 31-40 of the CONSTITUTION SUB-SECTION. This rule indicates the maximum number of ACTIVITY POINTS AVAILABLE to an individual at each of the different CONSTITUTION LEVELS.

When using the CONSTITUTION SUB-VALUE rules the total number of ACTIVITY POINTS AVAILABLE to an individual is determined using the ACTIVITY POINT SUB-VALUE TABLE rather than the ACTIVITY POINT CONSTITUTION LEVEL TABLE below.

- ACTIVITY POINT CONSTITUTION LEVEL TABLE -

HUMAN		KEYA-TEU	
CONSTITUTION LEVEL	ACTIVITY POINTS	CONSTITUTION LEVEL	ACTIVITY POINTS
Death	0	Death	0
Extremely Poor	7	Extremely Poor	9
Poor	15	Poor	18
Average	20	Average	25
Good	25	Good	30
Exceptional	32	Exceptional	33
Extreme	40	Extreme	35

These numbers of total ACTIVITY POINTS AVAILABLE do not reflect possible additions due to the effects of STATUS, drugs, disease, emotion, or other game operator authorized input. Additionally, these numbers of total ACTIVITY POINTS AVAILABLE reflect availability during a period of time between recovery periods, normally approximately 7 Hcu. (17.5 hours).

Other limitations exist as to the rate at which these ACTIVITY POINTS may be expended as described in the ACTIVITY POINTS and STATUS rules.

1.11.6 The possible effects of STATUS, drugs, disease, emotion, and other game operator authorized inputs must be carefully monitored by the game operator and the players. In the normal functioning of reality bookkeeping errors are self correcting in the realm of CONSTITUTION, as an individual cannot expend more energy (ACTIVITY POINTS) than s/he possesses without passing out or suffering circulatory system collapse. An individual cannot forget the effects of not having eaten or slept for days or weeks, s/he may only perservere as best able under the circumstances. The symptoms of a disease will not disappear simply because the victim neglected to notice them. However, the game operator and/or players can easily and accidentally overlook an input from one of these sources which may have a major effect on the players capability to interact with his/her environment.

To prevent this oversight, the STATUS of the individual and the effects, if any, of drugs, disease, emotion, or other game operator authorized inputs should be checked every time one of the following circumstances occurs.

1. Every time an action or activity changes the existing STATUS of the individual, or changes the input from the drug, disease, emotion, or other game rules currently effecting or potentially effecting the player.

2. At a periodic and predetermined interval appropriate to the Time Scale level at which the activities or actions of the player(s) are taking place. The upper limit of frequency for such a periodic check should be once every recovery period except when using Time Scale Levels of one turn = 10 Klu. (10 days) or more. Special care should be taken to anticipate and make such a check whenever a temporary increase or decrease to the individuals CONSTITUTION LEVEL ceases to take effect. This can be facilitated by the records maintained by the game operator as explained in the OPERATING SUB-SECTION of the GAME OPERATOR'S SECTION.

1.11.7 The CONSTITUTION VALUE, CONSTITUTION LEVEL, and their assocciated CONSTITUTION SPECIAL CAPABILITIES and total ACTIVITY POINTS AVAILABLE rules are intended to be used in a less rigerous and detailed simulation of the abilities and characteristics of individuals as they relate to their environment. These rules provide a basic foundation with which the actions and activities of players can be regulated and gamed out while still allowing sufficient detail and variation to maintain the interest and excitement of the players. Frequently the game operator or the players feel the need for a higher degree of complexity in the simulation of their metabolism and capabilities to effect their environment, and to fill this requirement a substantially more complex and intricate game system has been included which takes up where these rules leave off. The important aspect of these two levels of rules with which the actions and activities of the players can be resolved is that they interlock, and the accumulated records and information garnered by playing the LEGACY game for a period of time using one of the two rules systems can be quickly and easily transposed into the other of the two rules systems. In this way, without significantly interrupting the course of play, the game operator and the players can alter the level of detail with which they resolve an action or activity.

This rule serves as a guideline for which circumstances the basic CONSTITUTION rules should be used with. Fundimentally it is always up to the game operator and the players, but in case of disagreement or dispute rules are necessary.

1. The CONSTITUTION VALUE, CONSTITUTION LEVEL, CONSTITUTION SPECIAL CAPABILITIES and the ACTIVITY POINT CONSTITUTION LEVEL TABLE, 1.11.1 through 1.11.6, should be used whenever;
   A. Both the game operator and the player(s) agree that they are appropriate and should be used.
   B. The Time Scale Level within which the actions and activities of the players is taking place is equal to or greater than one turn = 10 Klu. (10 days).
   C. The action or activity of the player(s) is deemed by the game operator to be non-essential or insignificant to the overall goals or purposes of the game and does not represent more than a 5% chance of death for the player(s) at any particular decision point within the activity or action, regardless of the wishes of the player(s).
   D. The player(s) directly involved in the action or activity request that the action or activity be resolved using the basic CONSTITUTION rules and the game operator agrees.
   E. The necessity to bring a player(s) up to date with another player(s) participating in the same game so as to avoid cause and effect paradoxes is considered by the game operator to be an overiding factor.

Other rules and procedures throughout the LEGACY game are designed to be used in conjunction with either the basic CONSTITUTION rules or the advanced CONSTITUTION SUB-VALUE rules and are labeled as such. Whenever a rule is not specifically labeled as being designed to be used with either the basic or advanced CONSTITUTION rules it may be used with either of the two levels of CONSTITUTION rules and procedures. The decision to use either the basic or the advanced CONSTITUTION rules mandates that one of two situations will occur;

Either all of the other rules and procedures matching the level of CONSTITUTION rules chosen will also be used in resolving the activity or action,

or the game operator and the players will carefully transpose all of the inputs required to use a non-matching rule or procedure, and then carefully transpose all of the outputs from that non-matching rule or procedure to input to the remainder of the relevant rules. This is at best confusing, and should probably be avoided except in situation where only one or two aspects of an action or activity are of real importance and require detailed resolution, while the remaining aspects of the action or activity can be most quickly and easily resolved using the more basic rules and procedures. A further discussion of the implications and problems resulting from this procedure of "cross-matching different rules systems" is contained in the OPERATING SUB-SECTION of the GAME OPERATOR'S SECTION.

EXAMPLE: A group of three players are scouting out possible migration routes for their tribe to use later in the year. They plan on spending at least 100 Klu. (100 days) for this exploration, and both they and the game operator agree that this activity should be resolved in a Time Scale Level of one turn = 10 Klu. (10 days) unless something significant happens. The Terrain Mapping Scale Level of one hex = 10 Kms. is used as this will most likely be the Mapping Scale used during the tribal migration. During the fourth turn of the exploration the players encounter a pack of carnivorous fauna which pick up their scent trail and begin to stalk them. The players insist that the Time Scale Level be reduced to one turn = 1 unit (1.5 min.) and that the advanced CONSTITUTION

SUB-VALUE rules be used to take as much advantage as possible of the SKILLS, TECHNIQUES, and ABILITIES related to selfdefense and survival which they have aquired in previous actions and activities within the game. The game operator agrees that the Time Scale Level should be reduced to the one turn = 1 unit (1.5 min.) level, but s/he feels that enough of his/her valuable time has already been wasted on the scouting of migration routes and prefers to resolve the carnivorous encounter as quickly as possible. Due to the greater simplicity of the basic CONSTITUTION rules they are clearly more desirable from the standpoint of the game operator.

The game operator and the players can not agree on wether to use the basic or the advanced CONSTITUTION rules to resolve this particular situation, so rule 1.11.7 must be consulted. After reviewing the rule the game operator conceeds that there is no urgent need to catch up with other players within the game, and that if s/he were to resolve the current encounter on the most abstract Scale Level of all, the single die roll, s/he would judge their to be a greater than 5% chance that at least one of the players in the scouting party would be killed or SERIOUSLY WOUNDED. 1.11.7-C clearly indicates that a less than 5% chance must exist in order for the game operator to enforce a ruling to make the players resolve the situation using the basic CONSTITUTION rules, so the players get their way and the situation is resolved using one turn = 1 unit (1.5 min.) and the advanced CONSTITUTION SUB-VALUE rules.

A potential compromise between the players and the game operator would have been to resolve the situation using the advanced CONSTITUTION SUB-VALUE rules, but also using an increased Time Scale Level of one turn = 10 units (15 min.). This would have saved time while still allowing the players whatever advantages they hoped to obtain by using the advanced CONSTITUTION SUB-VALUE rules.

1.12 CONSTITUTION SUB-VALUES

The CONSTITUTION VALUE and CONSTITUTION LEVEL which together serve as an indicator of the physical and metabolic capabilities of an organism may also be represented by a set of indicators reflecting the individual values of the components which together comprise the CONSTITUTION VALUE and CONSTITUTION LEVEL. These more specific indicators are called CONSTITUTION SUB-VALUES.

The CONSTITUTION SUB-VALUES provide specific capabilities and limitations within which the organism must function. The CONSTITUTION SUB-VALUE is a decimal number ranging from 0 to 20 which may be gradually increased or decreased as a result of experience or training. The CONSTITUTION SUB-VALUES are based on the CONSTITUTION LEVEL of the individual organism, and may be temporarily increased or decreased as a result of STATUS, drugs, disease, emotion, and other game operator authorized inputs.

The CONSTITUTION SUB-VALUES represent a more detailed accounting of the players CONSTITUTION capabilities, and are refered to at various times in the rules as the advanced CONSTITUTION rules or the advanced CONSTITUTION SUB-VALUE rules.

1.12.1 An individuals CONSTITUTION SUB-VALUES must always reflect the individuals CONSTITUTION LEVEL as indicated on the CONSTITUTION SUB-VALUE TABLE below unless it is being currently effected by a STATUS, drug, disease, emotion, permanent increase due to training, experience, or the translation of CONSTITUTION SPECIAL CAPABILITIES, or other game operator authorized input.

- CONSTITUTION SUB-VALUES TABLE -

HUMAN

CON. Level	Str.	End.	Dex.	Dis.	Phy.
Death	0	0	0	0	0
Extremely Poor	2	2	2	2	3
Poor	3	3	3	3	4
Average	4	4	4	4	4
Good	5	5	5	4	4
Exceptional	6	6	5	4	5
Extreme	7	6	5	5	5

KEYA-TEU

CON. Level	Str.	End.	Dex.	Dis.	Phy.
Death	0	0	0	0	0
Extremely Poor	1	2	2	1	2
Poor	2	4	3	2	3
Average	5	5	4	3	4
Good	6	6	5	4	5
Exceptional	7	6	6	5	5
Extreme	8	7	6	5	6

1.12.2 An individuals CONSTITUTION SUB-VALUE may be temporarily increased or decreased due to the effect of STATUS, drugs, disease, emotion, and other game operator authorized inputs. The degree and circumstances associated with such a temporary increase or decrease are described in the appropriate rules SUB-SECTIONS. Temporary increases or decreases to the CONSTITUTION SUB-VALUES are always associated with a "DURATION OF EFFECT" which indicates exactly how long a period of time must pass before the CONSTITUTION SUB-VALUE returns to it's original level.

1.12.3 An individuals CONSTITUTION SUB-VALUES may be permanently increased or decreased due to the effects of STATUS, drugs, disease, emotion, training, experience, the translation of CONSTITUTION SPECIAL ABILITIES, or other game operator authorized input. The degree and circumstances associated with such a permanent increase or decrease are described in the appropriate rules SUB-SECTIONS. Permanent increases or decreases to the CONSTITUTION SUB-VALUES are never associated with a "DURATION OF EFFECT", and are considered permanent and lasting alterations to the relevant CONSTITUTION SUB-VALUE(S).

1.12.4 Whenever all five of the CONSTITUTION SUB-VALUES are equal to or greater than the CONSTITUTION SUB-VALUES associated with a specific CONSTITUTION LEVEL, but two or more of the individuals CONSTITUTION SUB-VALUES are less than or fall short of the CONSTITUTION SUB-VALUES associated with the next higher CONSTITUTION LEVEL, then that individuals CONSTITUTION LEVEL is considered to have been increased or decreased to that CONSTITUTION LEVEL.

This alteration of CONSTITUTION LEVEL can occur in two ways, temporarily and permanently. If the change is temporary due to the temporary increase or decrease of one or more CONSTITUTION SUB-VALUES, then the increase or decrease of CONSTITUTION LEVEL is considered temporary and shares with the increased or decreased CONSTITUTION SUB-VALUE(S) an identical "DURATION OF EFFECT". If the change is permanent due to the permanent increase or decrease of one or more CONSTITUTION SUB-VALUES, then the increase or decrease of CONSTITUTION LEVEL is considered permanent and is associated with no "DURATION OF EFFECT". In the circumstance of a permanent increase or decrease to the CONSTITUTION LEVEL of an individual due a permanent increase or decrease to one or more of that individuals CONSTITUTION SUB-VALUES that individuals CONSTITUTION VALUE must also be increased to reflect the new CONSTITUTION LEVEL. The individuals CONSTITUTION VALUE should be increased or decreased the minimum amount necessary to bring the CONSTITUTION VALUE into the range associated with that CONSTITUTION LEVEL as indicated on the CONSTITUTION TABLE on pages 13-14 of the CONSTITUTION SUB-SECTION.

NOTE: Whenever such a change in the CONSTITUTION LEVEL of an individual as described above occurs, and CONSTITUTION SPECIAL CAPABILITIES which have been translated into additions to the CONSTITUTION SUB-VALUES are a required or necessary part of the new CONSTITUTION LEVEL, then those CONSTITUTION SPECIAL CAPABILITIES are considered to be absorbed into the new CONSTITUTION LEVEL and are no longer recorded or translated between basic and advanced CONSTITUTION rules. Any CONSTITUTION SPECIAL CAPABILITIES which exist above and beyond the required levels for one or more CONSTITUTION SUB-VALUES and are not necessary to bring the CONSTITUTION SUB-VALUE(S) up to the level needed to qualify for a change in CONSTITUTION LEVEL remain uneffected and continue to be used and translated in the manner described in rule 1.11.4 on page 17 of the CONSTITUTION SUB-SECTION.

No CONSTITUTION SPECIAL CAPABILITIES can be used in both an increase in CONSTITUTION LEVEL and as an addition to the SUB-VALUES indicated by the new CONSTITUTION LEVEL.

EXAMPLE: A Human with an Exceptional CONSTITUTION LEVEL and an EXTRA STRENGTH CONSTITUTION SPECIAL CAPABILITY becomes sick and decides to take several doses of a powerful medicinal drug in the hopes of speeding his/her recovery. The disease has not yet caused the reduction of any CONSTITUTION LEVELS or CONSTITUTION SUB-VALUES, and when the Human takes the drug the result is an immediate cure and the addition of one point to the players Disease Resistence SUB-VALUE. For the purposes of this example we will consider the effects of this Dis. +1 result in terms of both a temporary and a permanent increase.

Transfering from the basic to the advanced CONSTITUTION rules we find that Human already had the following set of CONSTITUTION SUB-VALUES;

Str. = 7 End. = 6 Dex. = 5 Dis. = 4 Phy. = 5 (This includes the translation of the Humans X Str. into a +1 Str. added to the Strength SUB-VALUE.)

The CONSTITUTION SUB-VALUES required for the individual to increase his/her CONSTITUTION LEVEL by one are;

Str. = 7 End. = 6 Dex. = 5 Dis. = 5 Phy. = 5

The temporary increase of the Disease Resistence SUB-VALUE by one will trigger a temporary increase in the Humans CONSTITUTION LEVEL from Exceptional to Extreme. Temporarily the EXTRA STRENGTH CONSTITUTION SPECIAL CAPABILITY will no longer be credited to the individual as s/he is recieving the benifits for a new CONSTITUTION LEVEL of which it is a part, but the Human must roll percentile dice on the Extreme CONSTITUTION LEVEL table located on page 16 of the CONSTITUTION SUB-SECTION to see what new CONSTITUTION SPECIAL CAPABILITIES s/he will temporarily recieve. Once the "DURATION OF EFFECT" of the drug wears off, the Humans CONSTITUTION LEVEL and SUB-VALUES will revert to their former levels.

The permanent increase of the Disease Resistence SUB-VALUE by one will trigger a permanent increase in the Humans CONSTITUTION LEVEL from Exceptional to Extreme. The EXTRA STRENGTH CONSTITUTION SPECIAL CAPABILITY will no longer be credited to the individual as s/he will recieve the benifits of the new CONSTITUTION LEVEL of which it is a part. The Human must roll percentile dice and consult the Extreme CONSTITUTION LEVEL table located on page 16 to determine what new CONSTITUTION SPECIAL CAPABILITIES s/he will permanently recieve. The CONSTITUTION LEVEL of the Human will from this point forward be considered Extreme, and the CONSTITUTION VALUE of the individual will have to be adjusted upward to reflect this new CONSTITUTION LEVEL due to the stipulations of rule 1.11.1. The minimum CONSTITUTION VALUE which may be posessed by the Human in order to possess a permanent CONSTITUTION LEVEL of Extreme is 101, the lowest possible CONSTITUTION VALUE within that CONSTITUTION LEVEL, and this becomes the new CONSTITUTION VALUE of that individual.

A temporary or permanent reduction of an individuals CONSTITUTION SUB-VALUES by one (1) is never sufficient in and of itself to trigger the reduction of the individuals CONSTITUTION LEVEL. Strictly worded this rule states that if one of the five CONSTITUTION SUB-VALUES of an individual falls below the required level for a specific CONSTITUTION LEVEL but all of the remaining four CONSTITUTION SUB-VALUES of the individual are equal to or greater than the required level for a specific CONSTITUTION LEVEL, then that individual need not suffer an automatic and involuntary reduction of their CONSTITUTION LEVEL to the next lower CONSTITUTION LEVEL.

If a second CONSTITUTION SUB-VALUE should fall below the required level, or if a combination of factors is judged by the game operator to require the reduction of the individuals CONSTITUTION LEVEL, then the rules for reduction on page 21 must be followed. Additionally, any CONSTITUTION SUB-VALUES which exceed the requirements for the new CONSTITUTION LEVEL should be translated into appropriate CONSTITUTION SPECIAL CAPABILITIES reflecting the amount of excess.

1.12.5 An individuals CONSTITUTION SUB-VALUES serve as indicators of the capabilities of that individual in each of the five areas which they encompass. The specific effects of varying levels of each of the CONSTITUTION SUB-VALUES are described in the ACTIVITY POINT, RECOVERY, ENABLERS, and other rules, but a general description of each CONSTITUTION SUB-VALUE and the significance of each of it's levels is provided below and on the following page to allow the players and the game operator to familiarize themselves with the general significance and intention of the various CONSTITUTION SUB-VALUES.

- STRENGTH -

Strength reflects the amount of force which an individual can bring to bear on his/her environment in order to perform a specific action or activity such as movement, pushing, pulling, and other physical tasks. It is expressed in terms of a limit to the number of ACTIVITY POINTS which an individual may expend within a period of time, and also serves as an input to equations on ENABLER cards simulating the effects of Strength on a variety of actions and activities. The table below indicates the total number of ACTIVITY POINTS which an individual may expend within that period of time. The effects of STATUS, drugs, disease, emotion, training, experience, CONSTITUTION SPECIAL CAPABILITIES related to Strength, and other game operator authorized inputs are expressed in the increase or decrease of the Strength SUB-VALUE itself.

Strength SUB-VALUE	.01 unit (1 Sec.)	.1 unit (10 Sec.)	1 unit (1.5 Min.)	10 units (15 Min.)	100 units (2.5 Hrs.)	1000 units (1 day)	10000 units (10 days)
0	(Paralysis, no ACTIVITY POINTS may be expended by the individual but life support.)						
1	0.0	0.1	0.1	0.3	1.0	5.0	30.0
2	0.1	0.2	0.5	1.0	3.0	10.0	80.0
3	0.2	0.5	1.0	4.0	10.0	20.0	180.0
4	0.3	1.0	2.0	6.0	15.0	25.0	240.0
5	0.5	1.5	3.0	9.0	20.0	30.0	280.0
6	0.8	2.0	5.0	15.0	25.0	35.0	320.0
7	1.0	2.3	7.0	20.0	30.0	40.0	370.0
8-9	1.2	2.5	10.0	25.0	40.0	50.0	450.0
10+	(Information pertaining to Strength SUB-VALUES greater than nine is contained within the SCENARIO LOADING SUB-SECTION of the GAME OPERATOR'S SECTION)						

Both the Endurance SUB-VALUE and the METABOLIC STATUS may effect the number of ACTIVITY POINTS which an individual may expend within a period of time.

- ENDURANCE -

Endurance reflects the amount of time during which an individual can expend ACTIVITY POINTS before s/he begins to experience the effects of fatigue and other types of temporary or permanent damage to their physical structure and metabolism. It is expressed by a series of thresholds, each with a different set of consequences, which are triggered by the expenditure of increasing numbers of ACTIVITY POINTS. Each time an ACTIVITY POINT(S) is expended by the individual it is recorded on the Endurance Track below, and the effects, if any, which are triggered by that expenditure of ACTIVITY POINTS are immediately applied to the individual. These effects are considered to occur at the approximate time period in which the threshold was crossed, so if an individual attempts to take an action requiring more ACTIVITY POINTS be expended than are required to trigger a FATIGUE LEVEL IV (automatic unconsciousness) result, that action would be interrupted somewhere in the middle and would not be completed. The effects listed on the Endurance Track serve as inputs to both the Strength and STATUS game systems as indicated in the definitions of effects following the Endurance track.

ENDURANCE TRACK

1 FULL REST (E2+) RESTED (E1)	**2** FULL REST (E3+) RESTED (E2)	**3** FULL REST (E4+) RESTED (E2+)	**4** FULL REST (E6+) RESTED (E4+)	**5** FULL REST (E9+) RESTED (E5+)	**6** RESTED (E6+) E1=Ftg. 1	**7** RESTED (E7+) E1=Ftg. 2 E2=Ftg. 1	**8** RESTED (E9+)
9 E1=Ftg. 3 E2=Ftg. 2 E3=Ftg. 1	**10** E1=Ftg. 4	**11** E1=Ftg. 5 E2=Ftg. 3	**12** E4=Ftg. 1	**13** E2=Ftg. 4 E3=Ftg. 2	**14** E2=Ftg. 5	**15** E5=Ftg. 1	**16** E3=Ftg. 3
17 E4=Ftg. 2	**18** E3=Ftg. 4	**19** E3=Ftg. 5	**20** E5=Ftg. 2	**21** E4=Ftg. 3	**22** E6=Ftg. 1	**23**	**24** E4=Ftg. 4
25 E7=Ftg. 1	**26** E4=Ftg. 5	**27** E6=Ftg. 2	**28** E5=Ftg. 3	**29** E8=Ftg. 1	**30**	**31** E9=Ftg. 1	**32** E5=Ftg. 4 E7=Ftg. 2
33 E6=Ftg. 3 E10=Ftg 1	**34** E5=Ftg. 5 E8=Ftg. 2 E11=Ftg 1	**35** E7=Ftg. 3 E9=Ftg. 2	**36** E6=Ftg. 4 E10=Ftg 2 E11=Ftg 2	**37** E7=Ftg. 4 E8=Ftg. 3	**38** E6=Ftg. 5 E7=Ftg. 5 E9=Ftg. 3 E10=Ftg 3	**39** E8=Ftg. 4 E11=Ftg 3	**40** E8=Ftg. 5 E9=Ftg. 4 E10=Ftg 4 E11=Ftg 4

DEFINITIONS OF EFFECTS

FULL REST - Allows the individual to expend100% more ACTIVITY POINTS than the limit listed on the Strength table on the opposite page. RECOVERY die roll mdifier = +30.

RESTED - Allows the individual to expend 50% more ACTIVITY POINTS than the limit listed on the Strength table on the opposite page. RECOVERY die roll modifier = +10.

FATIGUE 1 - May trigger ENABLER CONDITIONS or other rules. RECOVERY die roll modifier = -5.

FATIGUE 2 - May trigger ENABLER CONDITIONS or other rules. RECOVERY die roll modifier = -10.

FATIGUE 3 - Limits the total number of ACTIVITY POINTS which an individual may expend to 50% of the limit listed on the Strength table on the opposite page. RECOVERY die roll modifier = -25. May trigger ENABLER CONDITIONS or other rules.

FATIGUE 4 - Limits the total number of ACTIVITY POINTS which an individual may expend to 10% of the limit listed on the Strength table on the opposite page. RECOVERY die roll modifier = -50. May trigger ENABLER CONDITIONS or other rules.

FATIGUE 5 - No ACTIVITY POINTS may be expended by the individual except life support. Triggers UNCONSCIOUS STATUS. RECOVERY Die roll modifier = -100. The individual must roll a single percentile die. If the number is higher than that individuals Endurance, than that individual is considered to have suffered a MAJOR WOUND.

EXAMPLE: A Human with an Average CONSTITUTION LEVEL has just completed a RECOVERY PERIOD. The number of ACTIVITY POINTS s/he has expended is 0, and given the Humans Endurance SUB-VALUE of 4 s/he is considered to be of FULLY RESTED STATUS. The Human spends 40 units (1 hour) and 2 ACTIVITY POINTS packing up his/her equipment and then engages in a vigerous 1 unit (1.5 Min.) and 4 ACTIVITY POINT destruction of all traces of his/her campsite. The normal limitation applying to the expenditure of ACTIVITY POINTS for a Human with a CONSTITUTION LEVEL of Average, hence a Strength SUB-VALUE of 4, is 2 ACTIVITY POINTS, but his/her FULLY RESTED STATUS allows the Human to expend up to 100% more ACTIVITY POINTS than the normal Strength limit. As mentioned in the ACTIVITY POINT rules the expenditure of the maximum possible number of ACTIVITY POINTS for a specific period of time causes the Endurance Track indicator to move one square ahead of where it would normally be placed after the ACTIVITY POINT expenditure. The total number of ACTIVITY POINTS expended by the Human at this point would be 6, but the Endurance Track indicator would be in the square labeled 7 due to the effect of the Human expending 4 ACTIVITY POINTS in 1 units (1.5 Min.) time. None of the 7 squares that the Humans Endurance Track indicator has passed through contains a FATIGUE LEVEL threshold for an Endurance SUB-VALUE of 4, so the Human is not considered FATIGUED.

If the Human then began to hike, expending additional ACTIVITY POINTS s/he would trigger the FATIGUE LEVEL 1 after the expenditure of 5 more ACTIVITY POINTS, in square 12. The actual number of ACTIVITY POINTS expended by the Human is only 11, but the exertion of destroying camp earlier in the day is beginning to make it's presence felt. If the Human continued hiking s/he would trigger the next FATIGUE LEVEL after the expenditure of 5 more ACTIVITY POINTS, in square 17. Comparing the 16 ACTIVITY POINTS already expended to the 20 ACTIVITY POINTS which are the total number available to a Human of Average CONSTITUTION LEVEL, the Human would probably decide to stop and make camp using the 4 remaining AVAILABLE ACTIVITY POINTS.

For the purposes of this example let's say that the Human elected to continue hiking until all of his/her ACTIVITY POINTS were used up. If this were to happen the individual would trigger FATIGUE LEVEL 3 after the expenditure of his/her last ACTIVITY POINT, in square 21, and his/her ability to expend additional ACTIVITY POINTS were they available would be diminished by 50%. Additionally, the RECOVERY die roll modifier now stands at -25, and this will probably result in additional time necessary to completely recover the 20 ACTIVITY POINTS expended and regain the FULLY RESTED STATUS that the Human began the day with.

No ACTIVITY POINTS remain to the Human to make camp, and s/he would be forced to stop whereever s/he was and initiate the RECOVERY PERIOD without the benifit of preparation or remaining unexpended ACTIVITY POINTS.

- DEXTERITY -

Dexterity reflects an individuals ability to control and manipulate his/her physical structure (body) in accordance with his/her desires. It is expressed by a percentage chance of encountering difficulty or recieving a greater than anticipated result each time an individual chooses to perform an action or activity which involves the use of his/her physical structure and/or the CONSTITUTION rules. Additionally the Dexterity SUB-VALUE is an input to equations on ENABLER cards simulating the effects of Dexterity on various actions and activities.

DEXTERITY EFFECTS

Dexterity SUB-VALUE	Highly Skilled Activity	Skilled Activity	Unskilled Activity	Life Support Activity	Communications Activity	Survival Activity
0	200%/1%	100%/1%	90%/1%	25%/1%	50%/2%	75%/5%
1	100%/1%	95%/1%	80%/1%	10%/1%	20%/3%	50%/7%
2	99%/1%	90%/1%	60%/1%	5%/1%	10%/4%	25%/10%
3	95%/2%	70%/1%	30%/1%	2%/2%	5%/5%	10%/15%
4	90%/3%	40%/2%	10%/1%	1%/3%	2%/7%	5%/25%
5	80%/5%	10%/3%	5%/1%	.1%/5%	1%/10%	2%/40%
6	60%/7%	5%/5%	2%/2%	.1%/7%	1%/13%	1%/60%
7	30%/8%	2%/6%	1%/3%	.1%/8%	1%/14%	1%/90%
8	5%/9%	1%/6%	1%/4%	.1%/9%	1%/14%	1%/95%
9	1%/10%	1%/7%	1%/5%	.1%/10%	1%/15%	1%/99%

10+ The game operator will determine the percentage chances of positive and negative effects of Dexterity for SUB-VALUES of ten or greater. Suffice it to say that the likely hood of achieving a positive result is increased and the chance of envoking a negative result is reduced for each level greater than nine.

The activity categories listed within the Dexterity Effects table on the opposite page are explained and defined within the ACTIVITY POINT rules.

The percentages listed indicate the likelyhood of a positive or negative tendency in the result of an action or activity in which an individual participates. Roughly stated they indicate the percentage chance that something will either go unexpectedly wrong or unexpectedly right when a player initiates or participates in an action or activity.

The procedure for using the Dexterity Effects table is as follows;

1. Determine wether the action or activity in question is a LIFE SUPPORT, COMMUNIATIONS, or SURVIVAL ACTIVITY STATE, or wether it is one of the remaining 22.

2. If the action or activity is a LIFE SUPPORT, COMMUNICATIONS, or SURVIVAL ACTIVITY STATE, then the Dexterity Effects table should be consulted under the appropriate category and percentile dice rolled to determine wether any positive or negative influences on the action or activities result occur. NOTE: the Dexterity Effects table does not indicate wether or not a particular action or activity is succesful or occurs the way the player desires, only wether or not the players own Dexterity and coordination help or hinder the resolution of the action or activity.

3. If the action or activity is one of the 22 remaining ACTIVITY STATES then the game operator should make a determination as to wether or not the action or activity is a Highly Skilled, Skilled, or Unskilled activity. This determination should be based on the degree of Dexterity and coordination needed by the player to succesfully resolve the action or activity. Once the Skill level of the action or activity has been determined by the game operator percentile dice are rolled and the Dexterity Effects table consulted under the appropriate category.

The results of the Dexterity effects table are listed as follows; the percentage which occurs before the slash indicates the percentage chance of a negative or nonDexterious and clumsy result effecting the resolution of the action or activity, while the percentage which occurs after the slash indicates the percentage chance of a positive or Dexterious and coordinated result effecting the resolution of the action or activity. The specific nature and degree of either positive or negative effect on the resolution of the action or activity will be determined by the game operator.

EXAMPLE: A Keya-Teu with a Good CONSTITUTION LEVEL and a Dexterity SUB-VALUE of 5 decides to attempt the theft of a CORBB egg. The CORBB is a small, reptilian, scaled organism which lays eggs of medicinal value in waterproof sacs which it deposits behind waterfalls and other equally inaccessable places. The Keya-Teu has been observing a waterfall for several days, and has seen several CORBB organisms entering and leaving the area directly behind the waterfall. The geology and structure of the cliff over which the water plummets vindicates the CORBB in it's choice of a hiding place for it's eggs, and the only manner the Keya-Teu can devise to access them is to lower him/her self over the edge of the cliff and swing through the falls, grabing any available CORBB eggs. After explaining his/her plan to the game operator the Keya-Teu player is forced to agree that the proposed manuever is a highly skilled one, and agrees to resolve the action using the advanced CONSTITUTION SUB-VALUE rules with a one turn = .1 unit (10 sec.) Time Scale.

The game operator takes into account the Keya-Teu players Strength, STATUS, ACTIVITY POINTS AVAILABLE, ENABLERS, and past experience swinging on ropes or vines into waterfalls. Having done this the game operator informs the Keya-Teu player that the two significant dangers are the possible damage from falling off the rope or striking the rocks of the cliff, or being attacked by irate CORBB organisms. Additionally the player faces the possibility that no CORBB eggs exist behind the waterfall, or that they are innoportunely placed for a Keya-Teu swinging on ropes to grab.

The Keya-Teu player proceeds, and the Dexterity effects table is consulted to determine wether any Dexterity related accidents occur during the action. For an individual with a Dexterity SUB-VALUE of 5 there is an 80% chance of invoking a negative effect, and after the die roll modifiers for experience, STATUS, and ENABLERS are calculated in a 55% chance of a negative effect remains. Percentile dice are rolled, and the Keya-Teu player rolls a 43, within the range of results indicating a negative effect. Before the nature of this negative effect is determined by the game operator however, the opportunit exists for a positive effect to be generated, perhaps canceling the negative effect. After the die roll modifiers for experience, STATUS, and ENABLERS are calculated there exists an 11% chance of a positive effect. The Keya-Teu player rolls percentile dice and gets a 7, within the range of results indicating a positive effect. The game operator informs the Keya-Teu player that this combination of results represents a near fall which the player was both lucky enough and Dexterious enough to avoid.

Next the game operator consults the CORBB FLORA AND FAUNA card to determine the likelyhood of the CORBB organisms attacking the Keya-Teu. The phrase "fiercely protective of eggs and young" virtually insures an attack, and the formality of a die roll confirms it. Faced with several CORBB organisms intent on protecting fiercely the Keya-Teu player elects to initiate a SURVIVAL ACTIVITY consisting of letting go of the rope at the point of it's swing furthest from the waterfall and the cliffs and diving into the pool below the falls.

The game operator agrees that such an action is possible and that it reasonably falls within the pervue of the SURVIVAL ACTIVITY STATE, and after consulting the players Strength, STATUS, ACTIVITY POINTS AVAILABLE, ENABLERS, and past experience diving from moving ropes while being attacked by CORBB organisms, the game operator directs the player to roll percentile dice. The resulting die roll is compared with the percentage chance of negative effect on the Dexterity Effects table. Failing to trigger the 2% chance of negative effect despite die roll modifiers which increase it's likelyhood the player rolls percentile dice again to determine the occurence of a positive effect. The Keya-Teu player rolls a 13, within the range of results indicating a positive effect. The game operator indicates that this effect modifies the result of the SURVIVAL ACTIVITY sufficiently to allow the Keya-Teu player to avoid striking the numerous rocks in the pool when entering the water, and after the expenditure of a few ACTIVITY POINTS by swimming the game operator concedes that the player has escaped the wrath of the CORBB organisms.

- DISEASE RESISTENCE -

Disease Resistence reflects the individuals ability to resist the effects of parasites and disease on his/her physical structure (body) and metabolism. Indirectely the Disease Resistence SUB-VALUE indicates the individuals capacity to resist the effects of ageing and other natural entropic processes which effect the physical structure and metabolism.

The ability of an individual to resist the onset, effects of, and transmittal or transference of the parasite or disease from one organism to another is represented by presence of a series of die roll modifiers associated with each level of the Disease Resistence SUB-VALUE. These die roll modifiers are compared to the specific characteristics of the disease to which the player has been exposed or which the player has contracted, and if the die roll modifiers do not either completely cancel out the chance of the disease or parasite effecting the player, or are insufficient to bring the likelyhood of infenction or contraction below 100%, then a die roll must be made to determine the result.

Previous exposure to a parasite or disease, STATUS, climactic conditions, or the use of drugs may provide additional die roll modifiers effecting the percentage chance of a parasite or disease effecting the individual.

DISEASE RESISTENCE TABLE

Disease Resistence SUB-VALUE	Flora Parasite	Fauna Parasite	Bacterial Disease	Viral Disease	Cellular Disorder	Metabolic Imbalance	Nutrient Defficiency
0	-100	-100	-100	-200	-500	-10	-50
1	-40	-50	-20	-50	-100	0	-25
2	-10	-20	-5	-10	-50	+1	-10
3	-4	-10	-2	-5	-20	+5	-3
4	-1	-5	-1	-2	-10	+10	-1
5	0	-1	0	-1	-5	+25	0
6	+1	0	+2	0	-3	+50	+1
7	+3	+1	+6	+1	-2	+100	+5
8	+10	+5	+15	+5	-1	+200	+10
9	+30	+10	+20	+10	0	+300	+25
10	+50	+30	+30	+20	+1	+400	+50
11	+60	+35	+35	+35	+3	+500	+100
12	+66	+39	+43	+39	+6	+600	+200
13	+69	+40	+45	+40	+10	+700	+300
14	+70	+40	+45	+40	+15	+800	+400
15	+70	+40	+45	+40	+19	+900	+500

16+ The effects of Disease Resistence SUB-VALUES greater than 15 will be determined by the game operator based on the other CONSTITUTION SUB-VALUES, STATUS, and the specific characteristics of the disease or parasite.

EXAMPLES OF PARASITES AND DISEASE

Floral Parasites

Earth

Athletes Foot - 150% chance of contracting after exposure to an active culture. Resides in warm, moist areas of the body such as between fingers and toes, in the mucas membranes of eye, mouth, nose, and throat. SYMPTOMS = dry, chapped, flakey skin in area of contagion emmiting a musty, fungous like odor. TREATMENT = reacts to fungicides and extremes of temperature. EFFECTS = irritation and itching.

Skye-Aa

The Scurge of Mall - 80% chance of contracting after exposure to spore bearing Igneous rock. Spores are absorbed through the pores of the skin and enter the bloodvessels and capillaries, traveling to the soft interior tissues and organs of the body. SYMPTOMS = fever, flushed dry skin, lack of persperation and salivation, soreness of tissues and organs, internal bleeding, dark green growths on and within the internal organs and tissues, and bleeding through the individuals orifices. TREATMENT = Surgical removal of the internal growths and purging the spores from the body with an extract of VIVITAR root. EFFECTS = severe bleeding causing a decrease in the METABOLIC STATUS of the individual of 1 every 10 Klu. (10 days) culminating in death.

Fauna Parasites

Ticks - 30% chance of contracting if traveling through or residing in tick infested areas, (primarily temperate marsh, field, and woodland). Burrows into the skin of the individual and drinks blood, increasing in size in proportion to the blood ingested. SYMPTOMS = a beatle like insect with it's head and pincers buryed in the skin or flesh of the individual. TREATMENT = Must be removed through the application of heat or suffocating gells forcing the tick to remove it's head from the individuals skin. Plucking the tick will result in the seperation of head and pincers from the body. the head and pincers will remain in the flesh of the individual and may cause infection. EFFECTS = essentially harmless except for the small amount of blood removed. May be a carrier for Rocky Mountain Spotted Fever.

Kallibore - 50% chance of contracting after exposure to stagnent or swampy water. Tunnels into the flesh of the individual and ingests the muscle tissue of whatever spot initially contacted, following along the muscle and ingesting it completely. SYMPTOMS = an initial sharp pain in one portion of the individuals anatomy followed by numbness in the effect muscle or muscles as the Kallibore excrets a nerve deadening poison. Shortly after the entrance of the Kallibore, normally within a span of 1 unit (1.5 Min.), the individual loses conscious due to the effects of the nerve deadening poison. TREATMENT = the surgical removal of the Kallibore and the administration of a nerve stimulant to counteract the effects of the nerve deadening poison. EFFECTS = if the Kallibore is not removed before the individual becomes unconscious, it will devoure all of the individuals muscle tissue causing the death of the individual. If the nerve deadening poison is not counteracted, the individuals METABOLIC STATUS will drop to 0 within 100 units (2.5 hrs.)

Bacterial Disease

Common Infection - 100% chance of contracting on exposure of an open wound to a nonsterile environment, 20% chance of contracting under normal environmental circumstances. A composite grouping of aerobic bacteria which commonly cause infections. SYMPTOMS = fever, a reddening and swelling in the area of infection, green and white puss and fluids leaking in the advanced stages. May also cause the reddening and swelling of bloodvessels and arteries as the infection spreads. TREATMENT = reduce fever and treat with antibiotics. In extreme circumstances amputation may be required to save the victims life. EFFECTS = Fever and dellerium, soreness of the infected area, and pain. May cause death if the infection spreads.

Common Infection - 140% chance of contracting on exposure of an open wound to a nonsterile environment, 25% chance of contracting under normal environmental circumstances. A composite grouping of airborne airobic and anarobic bacteria which commonly cause infections. SYMPTOMS = fever, a reddening and swelling in the area of infection, purple fluids weeping from the area of swelling, and a fierce heat emanating from the infection in the advanced stages. Will cause the swelling and discoloration of body parts as the infection spreads. TREATMENT = reduce fever and treat with antibiotics. Amputation may be necessary in severe cases. EFFECTS = high fever frequently causes brain damage, -20 to INTELLIGENCE VALUE. Pain and swelling in infected area, reduction of 1 METABOLIC STATUS level if local in effect, 2-3 METABOLIC STATUS levels if more widespread. If fever and infection remain unchecked or untreated death is the frequent outcome. 5% chance of survival for each level of Disease Resistence SUB-VALUE if untreated or unchecked. Brain damage may only be avoided by cooling the head of victim and controling fever.

Viral Disease

Common Cold - 60% chance of contracting after prolonged exposure to temperatures below 10 degrees Celsius. 30% chance of contracting after prolonged exposure to organisms already having contracted a cold. This disease represents a composite set of factors collectively known as the common cold. SYMPTOMS = mild fever, excess mucas production in nose, muscle and joint aches, head pain. TREATMENT = The introduction of a prolonged RECOVERY PERIOD and the administration of ACTEYLSALICYLIC ACID (aspirin). EFFECTS = the general low level of pain and fever associated with the common cold can be best categorized as an irritant.

Crimson Death - 400% chance of contracting after exposure to a decaying AMMUP or a portion of the AMMUPS lymphatic system. 1% chance of contracting the first exposure to any artifact made of or which has come in contact with a decaying AMMUP or a portion of the AMMUPS limphatic system. This 1% chance is contagious, and any individual or artifact which has been exposed to the conditions listed above will retain and pass on to each other artifact and organism it contacts the same 1% chance of contracting the Crimson Death. SYMPTOMS = severe fever, a red discoloration of the skin, a shrinking and painful contraction of the mucas membranes of eye, ear, nose, throat, and the skin as a whole. The Crimson Death is associated with intense flashes of pain preceeded by a general numbness and physical paralysis which makes the intense pain all the more intolerable. TREATMENT = no treatment is known save to burn the victim and all of the organisms and artifacts the victim has contacted to prevent the spread of the disease. EFFECTS = The intense flashes of pain often kill the victim in and of themselves, but the progressive fever and destruction of the mucas membranes and other soft tissues and organs of the body will cause the death of the victim within 10 Klu. (10 days). There is a 1 Klu. (1 day) incubation.

Cellular Disorders

Cancer - 3% chance of contracting a cancer in each Mgu. (2.74 yrs.). The exposure to a carcinogen may increase the likelyhood of contracting a cancer. SYMPTOMS = cancer is an uncontrolled growth of cells which disrupts the normal functioning of a tissue or organ. The symptoms may be any malfunction or reduction in the efficiency of a tissue or organ, but the single distinctive symptom is the growth of a tumor which steadily increases in size. This symptom seldom appears until the cancer has reached a terminal state. TREATMENT = surgical removal of tumors yields a 5% chance of cure. Advanced chemical and radioactive treatment and early detection yields 10-40% chance of cure. EFFECTS = in the intermediate and later stages cancer can cause metabolic disfunctions and extreme pain. If not cured it always ends in death, though a .1% chance exists of a spontanious natural cure in each Mgu. (2.74 yr.) period.

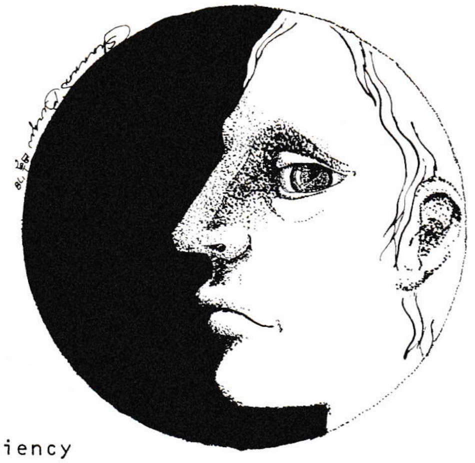
Accelinonus - 10% chance of contracting this disease with the first exposure to the Skye-Aa atmosphere as with birth, travelers from another planet, etc. The disease speeds the growth and health of the cells, promoting general well being and increased Strength and other CONSTITUTION related attributes. At the same time the disease shortens the life span of the victim by accelerating the processes of ageing. SYMPTOMS = the increase of one CONSTITUTION LEVEL and a consistent die roll modifier for all CONSTITUTION related actions, activities, and die roll situations of +10. This die roll modifier occurs despite and independent of any other die roll modifiers the individual may recieve. The ageing of the individual occurs at an accelerated rate, and the individual will moslt likely grow old before his or her time. TREATMENT = no known treatment is effective. EFFECTS = +1 CONSTITUTION LEVEL, +10 to all CONSTITUTION related die rolls, and an accellerated ageing process which is multiplied by a factor of 1.5 or more. At the option of the game operator even greater benifits and accelerations of the ageing process may occur in certain cases.

Metabolic Imbalances

Thyroid - 1% chance of contracting a thyroid condition in each Mgu. (2.74 years) with a 35% chance of the imbalance being overactive and a 65% chance of the imbalance being underactive. SYMPTOMS = overactive causes increased metabolic functions, overheating, vasodilation, and continuous mild fever. underactive causes water imbalance, sluggishness, fatigue, and continual low temperatures. TREATMENT = the regulation and balancing of the thyroxin levels in the victims blood stream. EFFECTS = an overactive thy-

Blood Pressure - The organ which controls and regulates the blood pressure in the Keya-Teu has a 1% chance of failing in each Mgu. (2.74 years). SYMPTOMS = wild flucuations in the individuals blood pressure which frequently cause heart attacks and fits of unconsciousness. TREATMENT = a transplant of a new blood pressure regulating organ or the implantation of a mechanical valve regulating the blood pressure of the individual are the only cures. The enforcement of an endless RECOVERY PERIOD can often save the life of the individual. EFFECTS = 10% chance of a heart attack for each 2 ACTIVITY POINTS EXPENDED by the individual determined every 100 units (2.5 Hrs.) Reduction of 1 CONSTITUTION LEVEL for each 3 heart attacks and 1% chance of death for each heart attack.

roid causes an increase of 2 in the individuals METABOLIC STATUS and the ongoing effects of a mild fever. Additionally the individual will seem constantly warm and will require less clothing than normal and will be less succeptable to colds and chill. An underactive thyroid causes a reduction of 1 in the individuals METABOLIC STATUS and a constant increase in the individuals FATIGUE LEVEL by one. This means the individual will never be FULLY RESTED, and that each level of fatigue will actually be of the next higher level.



Nutrient Defficiency

Scurvy - 10% chance of contracting for each 10 Klu. (10 days) period without the ingestion of fresh fruit or vegetables. SYMPTOMS = sickness and body sores, rotting teeth and delerium. TREATMENT = the ingestion of vitamin C and the careful maintainence of the victims STATUS during the period of recovery. EFFECTS = reduction of 1 CONSTITUTION LEVEL for each 10 Klu. (10 days) period during the disease and the loss of the victims teeth, hair, coordination, and vision.

Paarl Scourge - 120% chance of contracting for each 100 Klu. (100 days) period without the ingestion of vegetable products from the BALLIS family. SYMPTOMS = Initially the loss of hair (fur) and a slight weakening of the individuals memory, later complete baldness and amnesia. TREATMENT = extracts made from the sap of plants of the BALLIS family should be rubbed into the skin of the individual, especially into the hairless parts. Ingestion of vegetable products of the BALLIS family at this point will only increase the severity of the symptoms. EFFECTS = loss of hair and the reduction of 1 Memory INTELLIGENCE SUB-VALUE for each 2 Klu. (2 days) of the diseases effects.

EXAMPLE: A Human with a Disease Resistence SUB-VALUE of 7 and a Good CONSTITUTION LEVEL embarks on a journy by sailing ship which is sceduled to last 35 Klu. (35 days). Shortly after leaving port the ship is caught in a storm of great severity which last for an unknown number of days, and when the storm finally abates the surviving passengers and crew discover that they are hopelessly lost. They search for land for many days until the fresh provisions finally give out and they are left with only hardtack, stale water, and flour.

One of the older sailors begins to tell stories of a sickness which comes to sailors who have been to long away from land with ought but biscuits and water to eat and the passengers and sailors redouble their efforts to find land. After ten days they still have had no success, and after calculating the die roll modifiers for all of the other members of the passengers and crew the game operator comes to the Human player. With a Disease Resistence SUB-VALUE of 7 the Human has a die roll modifier of +5 for Nutrient Defficiency types of disorders. Due to the general poorness of diet and the rough conditions at sea to which the Human player is unacustomed a die roll modifier of -10 is imposed as explained later in the STATUS rules. This means that the net die roll modifier is -10+5 or -5, and when compared to the basic 10% chance of the individual contracting Scurvy after the first 10 Klu. (10 days) this leaves a 15% chance of the player contracting the disease. Percentile dice are rolled and the Human player gets a 9, low enough to cause the onset of Scurvy. No treatment is possible due to the complete lack of vitamin C, and the individual begins to experience the effects of Scurvy, a reduction to Average CONSTITUTION LEVEL and the initial loss ofcoordination, a weakening in vision, and a loosening of the teeth. Another 10 Klu. (10 days) pass, and the Human player suffers the loss of another CONSTITUTION LEVEL and begins to lose teeth and hair. Even if land was found and sources of fresh fruit and vegetables became available the Human would be forced to undergo a prolonged RECOVERY PERIOD in order to recover one or more of the lost CONSTITUTION LEVELS and possibly restore the lost hair. Rules determining this are described in the RECOVERY portion of the rules.

If the ship where to continue without finding land or a source of fresh fruit or vegetables the Humans condition would continue to worsen each 10 Klu. (10 days) until the players CONSTITUTION LEVEL finally dropped to 0 and s/he died.

The discriptions of parasites and diseases given as examples above contain four primary types of information; the conditions and percentage chances of contracting the parasite or disease, the symptoms by which it may be identified, the treatments by which it may be controlled, corrected, or cured, (if any), and the specific effects of the disease on the numbers and other indicators used in the LEGACY rules to simulate the CONSTITUTION abilities and characteristics of living organisms. When designing a new parasite or disease for use in the LEGACY game these four aspects should be carefully considered and rules and descriptions written so that they may interact with the other LEGACY rules. Other aspects may be left to the descretion of the game operator if desired.

- PHYSICAL EFFICIENCY -

Physical Efficiency reflects the individuals ability to convert food and other resources into necessary nutrients, and serves as a general indicator of the individuals physical structure and metabolism is functioning below or beyond it's normal level. The Physical Efficiency SUB-VALUE is closely associated with the METABOLIC STATUS indicator, but the METABOLIC STATUS has only a limited range of effects while the Physical Efficiency SUB-VALUE effects all CONSTITUTION functions of the individual. The Physical Efficiency SUB-VALUE may be increased or decreased through the effects of STATUS, drugs, disease, emotion, CONSTITUTION SPECIAL CAPABILITIES, and other game operator authorized inputs, as is the case with the other CONSTITUTION SUB-VALUES, but the Physical Efficiency is normally the most difficult to alter and causing the widest set of effects when altered.

Certain of the CONSTITUTION SUB-VALUES such as Disease Resistence are effected by little more than increases or decreases in the individuals CONSTITUTION LEVEL, a difficult change with widespread effects, but a single level of increase or decrease to the Physical Efficiency SUB-VALUE can alter the Disease Resistence SUB-VALUE by as much as several points. Though it does not change often, the Physical Efficiency of an individual must be carefully monitored by the game operator and the players as it's effects may change the other CONSTITUTION values and indicators almost totally.

The effects of Physical Efficiency are only triggered when the Physical Efficiency level of an individual changes either up or down. The individuals with lower than average Physical Efficiency are assumed to have learned to live with their disability, and it is already reflected in the lower SUB-VALUES and fewer ACTIVITY POINTS AVAILABLE to them. Individuals with higher Physical Efficiencies than the average have also learned to live with their ability, and the benifits associated with the higher Physical Efficiency are included in the higher SUB-VALUES and additional ACTIVITY POINTS AVAILABLE to them. For both the Human and Keya-Teu races an average Physical Efficiency SUB-VALUE is considered to be four (4).

The table below is used in the following manner; the CONSTITUTION LEVEL of the individual is found and the changes or results effecting the individuals SUB-VALUES and other CONSTITUTION levels and indicators are contained in the columns to the right of the CONSTITUTION LEVEL. Under each column of effects their are two results listed, usually one decrease and one increase. These two results reflect the changes and results associated with an increase or decrease in the Physical Efficiency SUB-VALUE, the first representing a decrease of one and the second indicating an increase of one. If an individual experiences an increase or decrease of more than one to his/her Physical Efficiency SUB-VALUE than the table below should be consulted once and all of the effects indicated calculated into the players existing CONSTITUTION levels and indicators. Any changes in the CONSTITUTION LEVEL caused by this as described in rule 1.12.4 on page 21 should be made and the new CONSTITUTION LEVEL, if any, used when the table below is accessed a second time. In the unlikely event that a change of 3 or more is experienced in the individuals Physical Efficiency the same procedure is followed. All effects of a change of one should be resolved before the effects of a change of two are calculated. All effects of a change of two should be resolved before the effects of a change of three are calculated and so on.

EFFECTS OF CHANGES IN THE PHYSICAL EFFICIENCY

CON. LEVEL	Str.	End.	Dex.	Dis.	CON. VALUE	ACT. PTS. AVAILABLE	METABOLIC STATUS
Death	0/0	0/0	0/0	0/0	00/00	0/0	0/0
Extrem. Poor	-2/+1	-1/+1	-3/+2	-1/+2	-10/+10	-2/+3	-2/+2
Poor	-1/+1	-1/+1	-2/+2	-1/+1	-5/+5	-1/+2	-1/+1
Average	-1/+1	-1/+1	-1/+2	-1/+2	-2/+3	0/+1	0/0
Good	-1/+1	-1/+1	-2/+2	-2/+2	-5/+5	-1/+2	-1/+1
Exceptional	-2/+2	-2/+2	-3/+2	-3/+3	-10/+10	-2/+3	-2/+2
Extreme	-2/+2	-3/+3	-3/+2	-2/+5	-25/+20	-3/+5	-2/+2

All of the effects listed on the table above are considered permanent, and as a careful study of the table will show an individual with an Exceptional or an Extreme CONSTITUTION LEVEL frequently stands to lose more than an individual with a lower CONSTITUTION LEVEL. This reflects the effects of systemic/metabolic shock and more debilitating imbalances in the individuals metabolic functions.

EXAMPLE: A Keya-Teu with an Average CONSTITUTION LEVEL, a CONSTITUTION VALUE of 54, a total of 25 ACTIVITY POINTS AVAILABLE, a current METABOLIC STATUS of 5, and CONSTITUTION SUB-VALUES of Str. = 5, End. = 5, Dex. = 4, Dis. = 3, and Phy. = 4. During the course of an activity which envolves the exploration and mapping of a mountain pass the Keya-Teu is trapped by a blizzard and spends nearly 100 Klu. (100 days) fighting for survival amongst the harsh conditions that exist in high altitude mountains covered with snow and ice. By forcing the limits of his/her CONSTITUTION and INTALLIGENCE abilities s/he finally finds his/her way to a campsite of other Keya-Teu and collapses into a prolonged period of recovery. At the end of this RECOVERY PERIOD the game operator describes the restoration of the aspects of the Keya-Teu's CONSTITUTION, INTELLIGENCE, and physical appearence which had suffered as a result of being lost in the mountains. In addition to recovering most of his/her original abilities the game operator informs the Keya-Teu player that s/he has gained a level of Physical Efficiency as a result of surviving the recent hardships.

After the initial congratulations the Keya-Teu player consults the EFFECTS OF CHANGES IN THE PHYSICAL EFFICIENCY SUB-VALUE table on page 30 to determine what effects the increase of a level of Physical Efficiency on his/her other CONSTITUTION values and indicators. Reading across from the Average CONSTITUTION LEVEL and using the second result which corresponds to an increase of one the Keya-Teu player records the following changes in his/her CONSTITUTION values and indicators; Str. 5+1=6, End. 5+1=6, Dex. 4+2=6, Dis. 3+2=5, Phy. = 5, CONSTITUTION VALUE of 54+3=57, ACTIVITY POINTS AVAILABLE of 25+1=26, and a METABOLIC STATUS of 5+0=5. This represents a significant increase in the CONSTITUTION SUB-VALUES of the Keya-Teu, but one final change is yet to come. Rule 1.12.4 on page 21 describes the procedure whereby a players CONSTITUTION LEVEL is kept aligned with his/her SUB-VALUES by raising the CONSTITUTION LEVEL whenever an individuals CONSTITUTION SUB-VALUES are all equal to or greater than the levels associated with the next higher CONSTITUTION LEVEL. A comparison of the Keya-Teu's SUB-VALUES to those indicated for a Good CONSTITUTION LEVEL on page 20 indicates that the Keya-Teu has qualified for a new CONSTITUTION LEVEL. This increase in CONSTITUTION LEVEL would be considered permanent due to the permanent nature of the changes which caused it, and the Keya-Teu's CONSTITUTION values and indicators would appear as follows after registering the effects of this increase; CONSTITUTION VALUE of 71, (the lowest allowable CONSTITUTION VALUE for a CONSTITUTION LEVEL of Good) A CONSTITUTION LEVEL of Good, ACTIVITY POINTS AVAILABLE of 31, (26+5 new for the additional CONSTITUTION LEVEL =31) and CONSTITUTION SUB-VALUES of Str. = 6, End. = 6, Dex. = 6, Dis. = 5, and Phy. = 5.

Clearly the Keya-Teu has profited by surviving his/her mountain ordeal.

1.13 ACTIVITY POINTS AND ACTIVITY STATES

The mechanism whereby the expenditure of energy and effort by living organisms upon the environment are regulated and controled is the ACTIVITY POINT. An ACTIVITY POINT is the "money" with which players "buy" actions and activities, with each action or activity having a "price" corresponding to the effort required to complete it.

An ACTIVITY POINT is roughly defined as one twentyth of the effort which a Human of Average CONSTITUTION LEVEL can expend over the period of one day. Another rough definition is the amount of effort or energy required to maintain the normal involuntary functions of a human, such as breathing and the circulation of blood, for a period of one day. Neither of these rough definitions are of direct value in using and expending ACTIVITY POINTS, but they help set the stage for the more precise definitions which follow later in these rules.

ACTIVITY POINTS are gained by engaging in a RECOVERY PERIOD, at the end of which a certain number of ACTIVITY POINTS become available and may be expended by the players ate varying rates for varying purposes until they are exhausted or until the next RECOVERY PERIOD commences. Once expended ACTIVITY POINTS are lost to the player and may only be regained by initiating a RECOVERY PERIOD. All actions and activitjes in the LEGACY game are calibrated in terms of ACTIVITY POINTS.

The number of ACTIVITY POINTS AVAILABLE to a player may be influenced by a wide variety of rules and procedures as detailed elsewhere in the LEGACY rules.

1.13.1 At the point in time that a RECOVERY PERIOD ends the individual who initiated the RECOVERY PERIOD is considered to be in the possession of a specific number of ACTIVITY POINTS as described in the RECOVERY rules. These ACTIVITY POINTS are AVAILABLE, meaning that the player may expend none, several, or all of these ACTIVITY POINTS AVAILABLE subject to the limitations of the rules which follow. In return for expending ACTIVITY POINTS players recieve effects described by the game operator which correspond to the action or activity with which the expenditure of ACTIVITY POINTS was associated. An individual may not expend more ACTIVITY POINTS than are AVAILABLE to him or her, and once expended the ACTIVITY POINTS are subtracted from the total ACTIVITY POINTS AVAILABLE to the individual, reducing the number available by the number expended. An ACTIVITY POINT may not be expended more than once, and once expended it is considered to no longer exist and may only be replaced by the initiation of a RECOVERY PERIOD or the effects of a disease, drug, or other game operator authorized input. ACTIVITY POINTS are discrete units, and may only be expended in fractions when using the advanced CONSTITUTION RULES.

1.13.2 Each expenditure of ACTIVITY POINTS must be associated with an ACTIVITY STATE. An ACTIVITY STATE is simply a category of actions and activities in which ACTIVITY POINTS are allocated and expended. They are used to simplify the game operators record keeping tasks and to aid in the resolution of actions and activities initiated by the players. There are twenty five different ACTIVITY STATES which are described below. Associated with each ACTIVITY STATE is a formula which describes the effects of ACTIVITY POINTS upon the outcome or resolution of an action or activity which falls within the confines of that ACTIVITY STATE. In this way the building of a house or any other action can be expressed in an ACTIVITY STATE cost, and the players can build a house or conduct any other action by spending sufficient time and ACTIVITY POINTS to fullfill the requirments of the ACTIVITY STATE and the specific action or activity.

ACTIVITY STATE	FORMULA	DESCRIPTION OF ACTIVITY STATE
Foraging	1 A.P. + 100 units (2.5 hours) = 1 Foraging factor	Foraging represents a continuous search for resources, usually edible flora and fauna, which may be combined with other types of ACTIVITY STATES at no additional cost. The effectiveness of Foraging is dependent on the availability of the resources being foraged for, the perception abilities of the forager, and the amount of area foraged which is determined by other ACTIVITY STATES with which the Foraging is combined.
Hunting and Gathering	3 A.P. + 100 units (2.5 hours) = 1 Hunting and Gathering factor	Hunting and gathering represents a focused effort using SKILLS TECHNIQUES, and ARTIFACTS if available to find and secure sources of nutrition. The effectiveness of Hunting and Gathering is dependent on the availability of nutrition sources, the ENABLERS posessed by the Hunters and Gathers, and the previous experience of the hunters and gatherers. Specific Hunting and Gathering rules are included in the Flora and Fauna SUB-SECTION.
Cultivation	2 A.P. + 100 units (2.5 hours) = 1 Cultivation factor	Cultivation represents the planting of seeds, weeding, control of insects, and other aspects of agriculture. The effectiveness of cultivation is dependent on the ENABLERS, resources, and the climate and weather available to the cultivators. Specific rules describing cultivation are described in the Flora and Fauna SUB-SECTION.
Herding	1 A.P. + 100 units (2.5 hours) = 1 Herding factor	Herding represents the care and sheperding of domesticated animals, presumably for food. The cost and effectiveness of the herding varies with the animals, the ENABLERS of the herder, the nature of the surrounding terrain, and the Climate and Weather. Specific rules describing herding are included in the Flora and Fauna SUB-SECTION.
Harvesting, Perserving	2 A.P. + 100 units (2.5 hours) = 1 Harvesting, Perserving factor	Harvesting and Perserving represents the transfer of cultivated, hunted and gathered, foraged, and herded nutritional sources into a form which can be maintained for a period of time greater than 10 Klu. (10 days) which will not deteriorate and/or become inedible. Examples include smoking, tanning, freezing, salting, canning, and the like. The specific circumstances surrounding the preservation of nutritional sources is included in the ENABLERS SUB-SECTION.
Stationary	0 A.P. for an unlimited amount of time = the lack of movement	The Stationary ACTIVITY STATE represents the lack of expenditure of ACTIVITY POINTS for movement, and the lack of any change in the physical location of the individual. Stationary is a relative term, as the lack of change in physical location depends on the Scale Level and amount of time involved, but a rule of thumb is that a stationary individual is one who does not move more than 1 meter for each unit of time which passes. This is roughly equavalent to a walking speed of less than .1 kilometers per 100 units, (.04 kilometers per hour)

Migration	1 A.P. + 100 units (2.5 hours) = 2 Kms. of distance traveled (1 movement point) The Migration movement rate represents the gradual movement of individuals over distance at a rate of slightly less than 1 kilometer an hour. Migration may be combined with several of the other ACTIVITY STATES, specificly Foraging, Hunting and gathering, Herding, Communication, Exploration, Meditation, Trail breaking, Load bearing, Light work, Medium work, Recreation, Practice and training, Life support, and survival. It is an ideal movement rate for one or more individuals who have work to do, animals to take care of, or who must meet many or all of their daily needs for nutrition while traveling.
Trek	2 A.P. + 100 units (2.5 hours) = 5 Kms. of distance traveled (1 movement point) The Trek movement rate represents the movement of individuals over distance at a rate of 2 kilometers per hour. Treking may be combined with some other ACTIVITY STATES, specificaly Foraging, Hunting and gathering, Communication, Exploration, meditation, Trail breaking, Load bearing, light work, Practice and training, Life support, and survival. Smaller groups of individuals and groups without animals often use the Trek rate.
Hike	3 A.P. + 100 units (2.5 hours) = 10 Kms of distance traveled (1 movement point) The Hike movement rate represents the movement of individuals over distance at the rate of 4 kilometers per hour. Hiking may be combined with certain other ACTIVITY STATES, specificly Foraging, Communication, Exploration, Meditation, Trail breaking, Load bearing, Life support, and survival. An individual or group of individuals seeking to quickly move from one point to another or to explore an area often use the hike movement rate.
March	5 A.P. + 100 units (2.5 hours) = 25 Kms. of distance traveled (1 movement point) The march movement rate represents the movement of individuals over distance at the rate of 10 kilometers per hour. A limited number of other ACTIVITY STATES may be combined with Marching, specificly Communication, Meditation, Trail breaking, Load bearing, and Survival. An individual or group of individuals in a hurry to get from one point to another would use the March movement rate.
Trail breaking	for trail breaking costs see the Terrain Mapping SUB-SECTION Trail breaking represents the delays and additional ACTIVITY POINT costs associated with traveling across other than clear terrain. These costs are listed on the Terrain Effects chart contained in the Terrain Mapping SUB-SECTION and in the COLLECTED TABLES SECTION in the back of the LEGACY rules.
Load Bearing	1 A.P. for each 10 kilos (21.4 pounds) of additional weight carried The Load Bearing formula listed above is a rule of thumb at best, and should be considered using common sense and the CONSTITUTION LEVEL, STATUS, and distance carried as possible modifiers. If any question or doubt arises as to how much weight an individual can carry and for how long s/he can carry it, the advanced CONSTITUTION ACTIVITY POINT rules provide a specific formula which can be used. The game operator is the final authority in terms of what an individual may carry and how many ACTIVITY POINTS it costs if the advanced CONSTITUTION rules are not used.
Light work	1 A.P. + 100 units (2.5 hours) = 1 work factor Light work represents physical labor of a non effort intensive nature such as clearing light brush, gathering loose firewood, thatching a roof, laying bricks, and the like. Each type of work will indicate wether it is light, medium, or heavy, and the number of work factors required to complete the task. The game operator has the final say in wether or not a given action or activity constitutes light, medium, or heavy work.

Medium work 2 A.P. + 100 units (2½ Hrs.) = 1 work factor

Medium work represents physical labor of a moderately labor intesive nature such as clearing brush, pitching a tent, laying stones, mixing mortar, and the like. Each type of work will indicate wether it is light, medium, or heavy, and the number of work factors required to complete the task. The game operator has the final say in determining wether a given action or activity constitutes light, medium, or heavy work.

Heavy work 5 A.P. + 100 units (2½ Hrs.) = 1 work factor

Heavy work represents physical labor of a labor intensive nature such as chopping firewood, felling trees, pulling stumps, digging ditches, and the like. Each type of work will indicate wether it is light, medium, or heavy, and the number of work factors required to complete the task. The game operator has the final say in determining wether a given action or activity constitutes light, medium, or heavy work.

Communications 0 A.P. for most types of communication unless lasting more than 100 units (2.5 hrs.)

Communication represents the use of gestures and language to communicate information or ideas from one individual to one or more individuals. It is associated with the allocation of CONCENTRATION FACTORS but does not usually require the expenditure of ACTIVITY POINTS. The game operator will determine wether a specific type of communication requires the expenditure of ACTIVITY POINTS.

Meditation 0 A.P.

Meditation represents the allocation of CONCENTRATION FACTORS for the purpose of contemplating reality, pondering a problem, thinking about the nature of the universe, and the like. The rules describing the effects of meditation are included in the INTELLIGENCE SECTION, but it is included here as certain types of meditation do require the expenditure of ACTIVITY POINTS.

Exploration 1 A.P. + 100 units (2.5 hours) = the perception and evaluation of the environment

Exploration represents the focusing of perception and judgement on some specific aspect of the environment. Certain types of exploration may involve the expenditure of additional ACTIVITY POINTS, while many types of exploration require the initiation of another ACTIVITY STATE such as a movement rate while exploring terrain, the Stationary ACTIVITY STATE while exploring the identity of s single plant, or the communications ACTIVITY STATE while exploring the thoughts and beliefs of another individual. Common sense must be used in the manner in which common sense is combined with other ACTIVITY STATES, and in the case of an uncertain combination the game operator has the final word as to what is required and how many ACTIVITY POINTS it costs.

Practice and Training Varies depending on the nature of what is being practiced or trained.

The only thing that differentiates Practice and training from other ACTIVITY STATES is that the individual initiating the ACTIVITY STATE declares that s/he is doing so with the express purpose of increasing his/her values, indicators, abilities, ENABLERS, or some other measure of their capability ot percieve, integrate or interact with their environment. This means that Practice and Training may be combined with nearly any ACTIVITY STATE save the hike and march movement rates. It is primarily an indicator telling the game operator that the individual is attempting to better him or her self using the Learning and Integration rules contained in the INTELLIGENCE SUB-SECTION or the SKILL ENHANCEMENT rules contained in the ENABLER SUB-SECTION.

Recreation Varies depending on the nature of the recreation initiated by the individual.

Like practice and training the Recreation ACTIVITY STATE is primarily an indication to the game operator that the individual is initiating an ACTIVITY STATE without any intention of increasing abilities or obtaining new information or knowledge.

Fabrication

1 A.P. = 1 fabrication point 10 units (15 Min.) = 1 fabrication factor

Fabrication represents the crafting and construction of artifacts, utensils, art objects, and a host of other shaped or altered resources which are made and used by sentient organisms. All artifacts have a fabrication cost in both points and factors, with points representing ACTIVITY POINTS and factors representing time. To fabricate any artifact an individual must expend sufficient fabrication points and factors and meet any other requirements listed in terms of skills, resources, and environmental conditions. If confusion or disagreement should arise over the conditions governing the fabrication of an artifact, the game operator is the final authority.

Recovery

0 A.P. and time as required in the RECOVERY rules

Recovery represents the individuals abstinence from all other ACTIVITY STATES requiring or involving the expenditure of ACTIVITY POINTS in order to recover or regain lost ACTIVITY POINTS, CONSTITUTION LEVELS, METABOLIC or other STATUS, and any other CONSTITUTION, INTELLIGENCE, or CHARISMA related loss to the individuals values. abilities, and indicators. The rules describing the specific procedures and effects of recovery are contained in the RECOVERY rules , but basically recovery consists of sleeping and healing.

Life support

1 A.P. which is automatically deducted from the ACTIVITY POINTS AVAILABLE

Life support represents the involuntary physical functions which must be maintained in order for the individual organism to continue to live. Examples are the inhalation of oxygen and the exhalation of carbon dioxide, the pumping of blood rich in oxygen and nutrients to the different parts of the body, and the maintainence of hormone and other metabolic balances in the individuals physical structure. Also included in the life support ACTIVITY STATE is an allowance of ACTIVITY POINTS sufficient to take care of the normal functions of ingesting food and eleminating wastes.

The 1 ACTIVITY POINT cost of the Life support ACTIVITY STATE is constant and has already been deducted from the total ACTIVITY POINTS AVAILABLE to the individual as shown on the ACTIVITY POINT CONSTITUTION LEVEL TABLE on page 18. The individual never has the opportunity ot spend this 1 ACTIVITY POINT on any other type of action or activity, but at the same time the individual need never expend on of his/her AVAILABLE ACTIVITY POINTS simply to take a breath or a bowel movement. For exceptions to this see the advanced ACTIVITY POINT rules on the following pages.

SURVIVAL

Varies depending on the type of action or activity required

At certain times during the play of the LEGACY game the players may find themselves faced with a situation requiring some type of immediate emergency action in order to perserve their health, safety, or sanity. These actions may be of almost any type and may encompass any of the other ACTIVITY STATES. The only requirement is that the player be confronted with some type of immediate (likely to occur in less than .1 unit (10 seconds)) threat which is likely to cause them loss of life, limb, or sanity. The primary reason for engaging in a SURVIVAL ACTIVITY STATE action or activity is to recieve the associated Dexterity benifits and to trigger an automatic transfer to the advanced CONSTITUTION SUB-VALUE rules. If a player initiates a SURVIVAL action or activity the game operator must resolve the action or activity using the advanced rules and the time scale requested by the player. This is one of the situations where a player may temporarily obtain one of the normal perogitives of the game operator for the purpose of increasing his or her chances of saving his/her own life.

COMBAT

Varies depending on the nature and duration of the conflict

Any time a player elects to cause physical damage to him or herself the combat rules are triggered and all expenditures of ACTIVITY POINTS are governed by those rules.

1.13.3 The following limitations apply to the expenditure of ACTIVITY POINTS when using the basic CONSTITUTION rules;

1. ACTIVITY POINTS may only be expended as discrete units. No fraction or percentage of ACTIVITY POINTS may be expended, only entire ACTIVITY POINTS in multiples of one (1).

2. The expenditure of ACTIVITY POINTS must be accompianied by a statement by the player indicating which ACTIVITY STATE or combination of ACTIVITY STATES the ACTIVITY POINT expenditure applies to, and a discription of the action or activity to aid the game operator in determining the results.

3. At no time may an individual expend more ACTIVITY POINTS than are available as determined by the ACTIVITY POINT CONSTITUTION LEVEL TABLE on page 18, unless the effects of disease, drugs, STATUS, or other game operator authorized input increases the total number of ACTIVITY POINTS AVAILABLE. If an individual either mistakenly or intentionally expends more ACTIVITY POINTS than are AVAILABLE to him/her, then the action or activity s/he initiated is considered interrupted at the approximate point at which the individuals ACTIVITY POINTS AVAILABLE were exhausted, and that individual immediately experiences the effects of FATIGUE LEVEL III as detailed in the RECOVERY rules.

4. The basic STATUS and RECOVERY rules are used in conjunction with the basic CONSTITUTION rules, and advanced STATUS, RECOVERY, CONSTITUTION, INTELLIGENCE, CHARISMA, ENABLERS, and other rules cannot be used in combination with the basic CONSTITUTION rules without the authorization of the game operator.

5. Even when an individual is not currently expending ACTIVITY POINTS, (other than the automatically expended LIFE SUPPORT) s/he must describe to the game operator which ACTIVITY STATE or combination of ACTIVITY STATES best describe his/her current actions and activities or lack there of. The minimum action or activity a player may undertake is either the STATIONARY or RECOVERY PERIOD ACTIVITY STATES, and if doing nothing else and no word of explaination is forthcoming from the player, the game operator will automatically assume that the player is participating in the STATIONARY ACTIVITY STATE.

1.13.4 Once an individual has made an expenditure of ACTIVITY POINTS and described the nature of the action or activity and the ACTIVITY STATE or STATES within which it falls, the game operator must consult the basic ACTIVITY and basic ABILITY die roll modifiers to determine the results of the action or activity. Basic ACTIVITY and ABILITY die roll modifiers and the basic ACTIVITY and ABILITY die rolls themselves are used only in conjunction with the basic CONSTITUTION and INTELLIGENCE rules.

Roughly the basic ACTIVITY die roll represents the percentage chance of an individual being able to complete an action or activity as described by them, and is effected by their CONSTITUTION values and indicators. The basic ABILITY die roll represents the knowledge, skill, and coordination which an individual brings to an action or activity. Some actions and activities require substantial amounts of ABILITY to complete, while others require only negligable amounts of ABILITY. The same is true for the amount of ACTIVITY required to complete an action or activity, and this is represented by varying levels of difficulty for different actions and activities expressed by a set of requirements for each type of action or activity. These requirements appear in the form of decimal numbers rangeing from one to one thousand (1-1,000) followed by a percentage sign. This indicates the approximate chance of an individual succesfully completing a given action or activity without any die roll modifiers what so ever. Each die roll modifier which the individual posesses due to CONSTITUTION and INTELLIGENCE abilities or knowledge and skill will increase the likelyhood of their succeding. The die roll modifiers are added to a simple decimal die roll, and if the number resulting from the addition of the die roll result with all applicable die roll modifiers is equal to or greater than the requirement for that action or activity, then the action or activity has been successfully completed. If the combination of die roll and die roll modifiers is less than the requirement for that action or activity than the action or activity has not been succesfully completed for reasons or effects that will be determined by the game operator.

Only basic ACTIVITY die roll modifiers may be combined with the die roll associated with meeting the basic ACTIVITY requirements for an action or activity.

Only basic ABILITY die roll modifiers may be combined with the die roll associated with meeting the basic ABILITY requirements for an action or activity.

If the die roll modifiers applicable to either ACTIVITY, ABILITY, or both are higher than the applicable requirement before the dice are rolled then they need not be rolled for that requirement(s). Success is automatic.

1.13.5 Certain basic ACTIVITY and ABILITY die roll modifiers are inherent in the CONSTITUTION LEVEL posessed by the individual, while others represent the effects of CONSTITUTION SPECIAL ABILITIES, SKILLS, TECHNIQUES, ARTIFACTS, and information. Those ACTIVITY and ABILITY die roll modifiers which are derived from the individuals CONSTITUTION LEVEL are listed below. These basic ACTIVITY and ABILITY die roll modifiers can be substantially effected by the STATUS of the individual as described in the basic STATUS rules.

CONSTITUTION LEVEL	ACTIVITY modifier	ABILITY modifier
Death	-1,000	-1,000
Extremely Poor	0	0
Poor	+20	+10
Average	+50	+30
Good	+70	+40
Exceptional	+80	+45
Extreme	+90	+50

EXAMPLE: A Keya-Teu with a CONSTITUTION LEVEL of Average and NORMAL STATUS decides to build a house. The tools (ARTIFACTS) and materials (FLORA, FAUNA, and other resources) are all ready, but to simplify the example the Keya-Teu will undertake the construction alone. The ACTIVITY STATE and basic ACTIVITY and ABILITY characteristics of house building are listed as follows;

TYPE I Keya-Teu housing structure requirements:

ARTIFACTS REQUIRED - Digging implement to create the hole and to cover the roof with soil. Axe or other wood cutting implement to fell and clear the side branches from several trees. A vessel which will hold at least 20 liters or water to mix the powdered BURN STONE with water to make mortar.

RESOURCES REQUIRED - 5 felled and cleaned trees, hardwood, at least 1 meter in diameter and ten meters long. 1 felled and cleaned tree at least two meters in diameter and fifteen meters long. 250 cubic meters of stone to form the walls and fireplace. An assortment of brush and small trees, some of which may be derived from the cleared and cleaned side branches of the primary trees. Sap of the KALBB vine to make the roof water tight. Suitable site, hillside or slope.

BASIC ACTIVITY and ABILITY REQUIREMENTS -

ACTIVITY STATE REQUIREMENTS	ACTION	ARTIFACTS	RESOURCES	ACTIVITY	ABILITY
50+ work Fact. (HEAVY)	Digging hole	Digging implement	none	70%	20%
75 work Fact. (MEDIUM)	Building walls	Mortar mixing vessel	stone, mortar	50%	80%
5 work factors (HEAVY)	Felling trees	Axe or other implement	suitable trees	60%	50%
5+ work Fact. (MEDIUM)	Cleaning trees	Axe or other implement	felled trees	50%	30%
10+ work Fact. (HEAVY)	Placing trees	none	cleaned trees	200%	100%
5+ work Fact. (MEDIUM)	Thatching roof	none	brush, small trees	40%	40%
5 work factors (LIGHT)	Sealing roof	Mortar mixing vessel	KALBB vine sap	20%	70%
10+ work Fact. (HEAVY)	Sodding roof	Digging implement	soil, sod, rocks	60%	30%

We have already stated that the resources are available, so let us commence to work. This is quite a large project for a single individual, even a Keya-Teu who are generally stronger than Humans, but let's see what happens when s/he tries to construct a dwelling in the classical manner.

First the hole must be dug, and if we figure a lean 5 ACTIVITY POINTS to expend for the securing and preparation of nutrients and other requirements that leaves the Keya-Teu with 20 ACTIVITY POINTS which s/he may expend each day (between RECOVERY PERIODS) to dig the hole and accomplish other tasks. Each work factor involves 5 ACTIVITY POINTS and requires 100 units (2.5 hours) time, meaning that the Keya-Teu individual can accomplish 4 HEAVY work factors per day without exhausting him/herself, at a cost in time of 400 units (10 hours). This makes sense considering that this expenditure represents the complete use of the Keya-Teu's AVAILABLE ACTIVITY POINTS and would trigger a FATIGUE II with the last ACTIVITY POINT expended. This fits in well with the picture of a difficult but productive days work brough to a close by substantial fatigue experienced by the worker. At 4 work factors a day the hole would require 12½ days to dig. let's assume that a small recreation period or other time expenditure accounts for the other ½ day and round it up to 13000units (13 days).

To determine wether or not the hole has been successfully and properly dug the basic ACTIVITY and ABILITY requirements must be compared to the individuals die roll modifiers in the following fashion. The digging of the hole requires that a 70 or higher be rolled by the individual on percentile dice. This means that there is an inherent 31% chance of completing the task with no die roll modifiers what so ever, but the Keya-Teu can improve his/her chances by taking into account the basic ACTIVITY die roll modifiers inherent in his/her CONSTITUTION LEVEL and others if possible. With an Average CONSTITUTION LEVEL comes a basic ACTIVITY die roll modifier of +50, making an 81% chance of succesfully and properly digging the hole. Percentile dice are rolled, and the Keya-Teu falls well within the range needed for success with a 53, (53 + 50 = 103 which is greater than 70). The ability of the Keya-Teu is also of some importance in hole digging, though not as important as the shear physical labor involved. The basic ABILITY requirement is 20%, meaning that their is already an 81% chance that the individual has the ABILITY to dig the necessary hole with no die roll modifiers what so ever. The basic ABILITY die roll modifier inherent in the Keya-Teu's CONSTITUTION LEVEL is +30, and as this is higher than the 20 required to succesfully complete the hole the individual is automatically considered to have sufficient ABILITY.

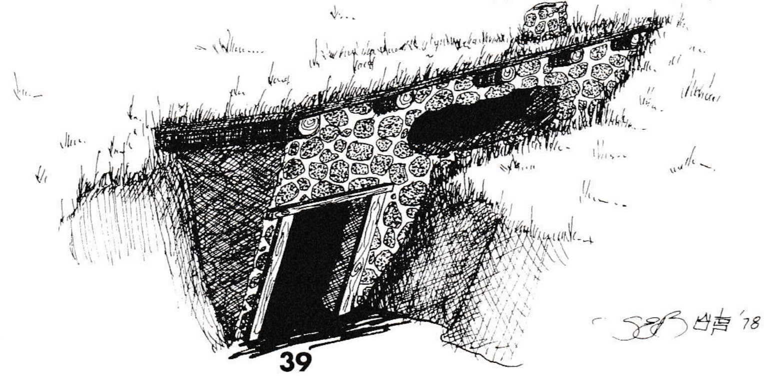
The next step is the building of the walls , and if the Keya-Teu continues to work at the same rate, expending only 5 ACTIVITY POINTS to meet basic needs, then the individual will be able to complete 10 work factors worth of stone laying and mortar mixing per day. This is were common sense and a careful examination of the available time and the time costs of the various ACTIVITY STATES is most important. Even though the Keya-Teu has enough ACTIVITY POINTS to complete 10 work factors of medium work in a days time, each work factor still takes 100 units (2.5 hours) and 10 work factors would require 1,000 units (1 day) which leaves no time remaining within the day to expend the 5 ACTIVITY POINTS associated with basic needs or to initiate and complete a RECOVERY PERIOD to restore ACTIVITY POINTS for the next days work. Clearly some balance must be found between the available ACTIVITY POINTS and the time required to complete the necessary work. Two options are open to the Keya-Teu, s/he may spend 500 or 600 units (12.5 or 15 hours) stone working and the remainder on basic needs and RECOVERY PERIOD, or s/he may combine the MEDIUM stone work with some HEAVY work such as felling trees. Since the second option is less wastefull of time we will presume that this is what the Keya-Teu has chosen.

Let us assume that the Keya-Teu combines 100 units (2.5 hours) felling trees at the HEAVY work rate of 5 ACTIVITY POINTS with 500 units (12.5 hours) of masonary work at the MEDIUM work rate of 2 ACTIVITY POINTS per work factor for a total expenditure of ACTIVITY POINTS of 15, requiring 600 units (15 hours) to complete and resulting in 1 HEAVY work factor and 5 MEDIUM work factors. This leaves the Keya-Teu with 10 ACTIVITY POINTS which may be expended on recreatio- and basic needs rather than 5, and opens up the possibility of the Keya-Teu crawling into bed at night with ACTIVITY POINTS AVAILABLE, a definite luxury.

At this rate the trees will be felled and two thirds of the walls built in 5,00 units (5 days) making the total amount of time spent in construction so far 18,000 units (18 days). No other work on the house may be completed until the walls are finished and the trees are cleaned of side branches, so the Keya-Teu spends another 3,000 units (3 days) completing these tasks while resting up a bit. The total time spent on construction so far is 21,000 units (21 days).

Of course none of the tasks listed above are really completed until the basic ACTIVITY and ABILITY costs and die roll modifiers have been compared and any necessary die rolls have been successfully made. Below is a table listing the pertenant information and a sketch of the house after it has been completed, (cut away to demonstrate the construction methods).

ACTION	RELEVANT DIE ROLL MODIFIERS	ACTIVITY REQ.	ABILITY REQ.	RESULT
Building walls	+50 CON. LEVEL/+30 masonary skill	50%	80%	auto./53+30=83
Felling trees	+50 CON. LEVEL/none	60%	50%	74+50=124/47+0=47
Cleaning trees	+50 CON. LEVEL/none	50%	30%	auto./auto.



As indicated by the table on page 39 all but one of the actions were succesfully completed, three of them without the need to roll dice. The problem in tree felling must be determined by the game operator, and considering the nearness of the die roll and the absolute lack of ABILITY die roll modifiers posessed by the Keya-Teu the game operator decided that the failure represented a stupid mistake or a mistake of ingnorance on the part of the tree feller. The most ignorant mistake that can be made when felling trees is to have the tree fall on top of you, and the game operator determined that this is what happened and assigned a wound to the Keya-Teu player. The time required to heal this wound using succesive RECOVERY PERIODS was 4,000 units (4 days) and this must be added to the total time required to construct the house which now atands at 25,000 units (25 days).

The next step poses difficulties for the Keya-Teu. The work itself is within the reach of a single persons abilities when phrased in terms of HEAVY work factors, but both the ACTIVITY and ABITITY requirements are so high as to place the task outside of the range of what the individual Keya-Teu can accomplish. It should be noted that if the Keya-Teu possesed an ARTIFACT such as a tractor, a set of block and tackle, or a winch the task might be possible. These artifacts would contain die roll modifiers sufficent to surmount the obstacle of the 200% basic ACTIVITY requirement, and if they contained instruction books might even accomodate the high ABILITY requirement. As things are, however, the Keya-Teu has none of these ARTIFACTS and must travel to the nearest habitation of other Keya-Teu to get help. The nearest Keya-Teu live 500 units (12.5 hours) away, and it takes the Keya-Teu player 2,000 units (2 days) to get there and return with the needed help, (500 units to get there, 500 units to sleep, eat, and plead his/her case, another 500 units to return, and a final 500 units to recover from the journey and prepare for the next days work.). This brings the total time expended on construction and construction related tasks to 27,000 units (27 days).

The group of Keya-Teu make short work of the placement of trees as follows. There are three new Keya-Teu in addition to the Keya-Teu player, and together the compose the following set of die roll modifiers.

ACTION	RELEVANT DIE ROLL MODIFIERS	ACTIVITY REQ.	ABILITY REQ.	RESULT
Placing trees	+125 combined / +40 experience CON. LEVELS	200%	100%	86+125=211/71+40=111

Though the odds do not favor four Keya-Teu engaged in this type of work the luck of the dice allowed them to complete the project. It should be noted that the die rolls in such situations as this one represent a series of variable factors, only one of which is luck. It might of been that one of the Keya-Teu thought of several innovative and worthwhile ideas during the log lifting which made the job possible. This would have been reflected in the successful completion of the task and the experience gained by all concerned. At the same time a failure to complete the job due to poor die rolling might have been a simulation of the lack of worth of that same individuals innovative ideas.

The rules which explain how groups of Humans or Keya-Teu work together and pool abilities and die roll modifiers to get things doine are contained in the INTERACTIONS SUB-SECTION of the rules.

Continuing in this manner but on his/her own after the departure of the other Keya-Teu the Keya-Teu player is able to complete the remaining work in 4,000 units (4 days) bringing the total house construction time to 32,000 units (32 days) and an expenditure of over 600 ACTIVITY POINTS on the part of the Keya-Teu player. After such an expenditure of time and effort I hope that s/he will enjoy his/her house and that the roof does not leak for at least the first few mega-units (2.74 years).

1.13.6 The problems or failures occuring when a player or group of players fail to reach a basic ACTIVITY or ABILITY requirement are up to the game operator, but they should be determined using a careful projection of all known factors and information pertaining to the action or activity in question. In the majority of instances the failure to reach a basic ACTIVITY requirement means that the player(s) CONSTITUTION abilities and characteristics did not in some way measure up to the requirements of the task. This most often results in the simple failure of the intended action or activity, injury to the player in accordance with the nature and risks of the action or activity, or some other effect or consequence which the game operator deems oppropriate to the situation. The failure of a player or group of players to reach a basic ABILITY requirement most often indicates a lack of experience, expertise, or knowledge about the action or activity undertaken. Often it may also indicate a lack of dexterity or coordination also. The simple fact of attempting an action or activity often is accomianied by basic ABILITY die roll modifiers based on the experience or knowledge gained through the attempt. When this is the case and the circumstances remain otherwise unchanged the player(s) may often simply try again using the new die roll modifier(s). The rules describing the effects of learning and experience and how they are kept track of is included in the INTELLIGENCE SUB-SECTION of the rules.

The game operator has final authority over what consequences befall a player(s) for failing to reach a basic ACTIVITY or ABILITY requirement, but the extent to which the requirement was missed, the likely mistakes or weaknesses of the players, and the inherent dangers of the task should all be taken into account.

1.13.6 The total number of ACTIVITY POINTS AVAILABLE to an individual using the advanced CONSTITUTION SUB-VALUE rules is determined by the individuals Strength CONSTITUTION SUB-VALUE and METABOLIC STATUS as shown on the table below. Additional ACTIVITY POINTS may be available to the individual due to the effects of Physical effeciency and other rules and procedures.

Strength SUB-VALUE	METABOLIC STATUS - HUMAN 0	1	2	3	4	5	6	7	8	9	10	11+
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3
1	0.0	0.0	0.1	0.5	1.0	5.0	6.0	7.0	7.5	8.0	8.3	8.5
2	0.0	0.1	0.5	3.0	6.0	10.0	12.0	13.0	14.0	15.0	16.0	17.0
3	0.1	0.5	2.0	5.0	10.0	15.0	18.0	20.0	22.0	23.0	24.0	25.0
4	0.2	1.0	4.0	9.0	14.0	20.0	25.0	29.0	32.0	34.0	35.0	36.0
5	0.3	2.0	5.0	10.0	15.0	25.0	30.0	39.0	42.0	43.0	44.0	45.0
6	0.4	3.0	7.0	15.0	20.0	30.0	35.0	40.0	44.0	47.0	49.0	50.0
7	0.5	5.0	10.0	20.0	30.0	35.0	40.0	45.0	49.0	52.0	54.0	55.0
8	0.5	7.0	15.0	30.0	40.0	45.0	49.0	52.0	54.0	55.0	56.0	57.0
9	0.5	10.0	20.0	40.0	45.0	49.0	52.0	54.0	55.0	56.0	57.0	58.0

10+ ACTIVITY POINTS AVAILABLE to individuals with Strength SUB-VALUES greater than 9 or METABOLIC STATUS higher than 10 are associated with substantial effects and consequences which must be determined and explained by the game operator.

Strength SUB-VALUE	METABOLIC STATUS - KEYA-TEU 0	1	2	3	4	5	6	7	8	9	10	11+
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	1.0	5.0	10.0	20.0
2	0.0	0.0	0.0	0.1	0.3	0.7	1.5	5.0	10.0	20.0	25.0	30.0
3	0.0	0.0	0.1	0.5	1.0	4.0	9.0	15.0	30.0	40.0	45.0	48.0
4	0.0	0.1	0.7	2.0	5.0	9.0	15.0	20.0	32.0	41.0	45.0	47.0
5	0.0	0.2	1.0	4.0	8.0	15.0	25.0	30.0	33.0	41.0	44.0	45.0
6	0.0	0.3	2.0	5.0	10.0	20.0	30.0	32.0	33.0	40.0	42.0	42.0
7	0.0	0.5	3.0	10.0	20.0	30.0	31.0	32.0	35.0	37.0	39.0	40.0
8	0.1	1.0	5.0	10.0	21.0	31.0	32.0	33.0	35.0	36.0	37.0	38.0
9	0.2	2.0	6.0	12.0	23.0	35.0	34.0	33.0	32.0	31.0	30.0	25.0
10	0.3	3.0	9.0	15.0	25.0	40.0	35.0	30.0	25.0	20.0	10.0	3.0
11	0.5	5.0	10.0	20.0	30.0	40.0	30.0	20.0	10.0	5.0	2.0	1.0
12	0.5	7.0	15.0	25.0	40.0	30.0	20.0	10.0	5.0	3.0	2.0	1.0
13+	0.4	10.0	20.0	35.0	45.0	30.0	20.0	10.0	5.0	2.0	1.0	0.5

ACTIVITY POINTS AVAILABLE to individuals with SUB-VALUES of 13 or higher and METABOLIC STATUS of 11 or higher must be evaluated and potentially determined by the game operator. As can be seen in the table above the manipulation of the Keya-Teu METABOLIC STATUS is essential to accomodate the higher levels of Strength SUB-VALUE.

It is in these tables more than any others that the essential differences between the Human and Keya-Teu races are demonstrated. Higher levels of Strength place great demands on the Keya-Teu metabolism which is already functioning at a significant percentage of full capacity while the Human metabolism has a vast store of unused or unactualized potential and can easily expand to meet the demand of increases in the Strength CONSTITUTION SUB-VALUE.

1.13.7 The same ACTIVITY STATES as listed on pages 32-35 are used in the advanced CONSTITUTION SUB-VALUE rules, but the ACTIVITY POINT/time requirements are different and the results or effects of each ACTIVITY STATE are phrased in a more specific and detailed manner. A table showing the ACTIVITY STATES and the formula associated with each one is provided below. These often complex formula need not be frequently used, as common sense dictates that if a stone of a certain size requires a certain number of ACTIVITY POINTS to lift, a larger stone will require more ACTIVITY POINTS, etc. A complete listing of rules of thumb for estimating quickly the number of ACTIVITY POINTS required to perform a given action or activity are provided in the GAME OPERATOR'S SECTION an in the COLLECTED TABLES SECTION at the back of the LEGACY rules booklet. These formula are provided primarily to show from whence the rules of thumb originate and to resolve difficult or disputed situations or estimations.

FORAGING: 0.1 ACTIVITY POINT combined with 10 units (15 min.) = 1 FORAGING POINT

One FORAGING POINT is defined as one tenth (1/10) of a FORAGING FACTOR as used in the basic CONSTITUTION rules. The ACTIVITY POINTS may be increased to as much as 10.0 per 10 units (15 Min.) subject to the limitations of Strength and other rules. This would represent a frantic search indeed.

HUNTING AND GATHERING: 0.5 ACTIVITY POINT combined with 10 units (15 Min.) = 1 HUNTING AND GATHERING POINT.

One HUNTING AND GATHERING POINT is defined as the effort or ability necessary to hunt or gather one amount of either flora or fauna with an accessability of 10 or greater, roughly two tenths (2/10) of a HUNTING AND GATHERING FACTOR as used in the basic CONSTITUTION rules. The number of ACTIVITY POINTS expended may be increased to as many as 10.0 per 10 units (15 Min.) representing an intensive and exhausting hunt or gathering. The actual combat or struggle between the HUNTER GATHERER and a given organism, if any, may be simulated using the interactions rules contained in the INTERACTIONS SUB-SECTION. The time that this may require can be deducted from the time spent hunting as it is considered a part of HUNTING AND GATHERING, and as many ACTIVITY POINTS as are being expended by the individual per unit (1.5 Min.) of time may be deducted from the total number of ACTIVITY POINTS required to hunt or gather the organism, or alternately may be added to the interaction or conflict resolution in accordance with the span of time over which they were expended. Once more this represents that ACTIVITY POINTS abstractly expended in a general HUNTING AND GATHERING ACTIVITY STATE may actually be included in the subduing or conflict with organisms.

CULTIVATION: See WORK

HERDING: See WORK

HARVESTING AND PRESERVATION: See WORK

MOVEMENT STATES: A complete discussion of the variations and effects of ACTIVITY POINTS, varying periods of time, different scale levels, and varying terrain (TRAIL BREAKING) costs is included in the TERRAIN MAPPING SUB-SECTION of the ENVIRONMENT SECTION.

TRAIL BREAKING: See above and the TERRAIN MAPPING SUB-SECTION.

LOAD BEARING: See WORK

WORK: Formulas are listed for various types of work such as pushing, pulling, and throwing. These do not correspond directly to LIGHT, MEDIUM, or HEAVY WORK as the total weight or amount of work and other circumstances are far more influential in determining this. The game operator must determine in each instance wether a given action or activity constitutes LIGHT, MEDIUM, or HEAVY WORK unless the work involved is close or equivelent to the types described and already defined in the basic CONSTITUTION rules.

Many ACTIVITY STATES actually constitute work, such as cultivation. In such a circumstance the actual work involved, be it digging, pulling weeds, or whatever must be evaluated and matched with it's closest work formula. Examples offered later in this rule clarify how this is done.

These equations and formula are based on the capabilities of a Human or Keya-Teu without any SKILLS, TECHNIQUES, or ARTIFACTS other than those naturally existing or associated with their PERSONAL ABILITIES AND CHARACTERISTICS. For EXAMPLE: the use of a shovel would make digging substantially more effeciant, and the use of a spear thrower or catapult would greatly increase the amount of weight an individual could throw and the distance s/he could throw it.

For the differences made by SKILLS, TECHNIQUES, and ARTIFACTS see the ENABLERS SUB-SECTION and the individual ENABLER cards. On them are modifications of the work formulas which reflect the benifits derived from better ability and tools.

DIGGING A.P. per 10 units = 1 cubic meter

1.0 ACTIVITY POINT + 10 units (15 min.) = a hole 1 meter by 1 meter by 1 meter

Varies of course depending on soil type, moisture content, and most importantly the use of an artifact. A shovel would increase the ratio to 1 A.P. to 5 cubic meters. ACTIVITY POINTS may be increased to any possible value.

LIFTING Kilos/(Strength x 10) per .1 unit = A.P. cost

50 kilos divided by 5 Strength SUB-VALUE times 10 + .1 unit (10 seconds) = ACTIVITY POINT cost of 1.0 ACTIVITY POINTS.

Kilos may not be increased higher than the individuals Strength times 10 plus 2. Strength varies in accordance with the individuals SUB-VALUE.

CARRYING Kilos - (2 x Strength) - (3 x Endurance)/10 = A.P. cost per 100 units

50 kilos minus 10(2x5 Strength) minus 12(3x4 Endurance) + 100 units (2.5 hours) divided by ten = 2.8 ACTIVITY POINTS

Kilos carried may not exceed Strength plus Endurance times 10. Strength and Endurance vary in accordance with the individuals SUB-VALUES.

PULLING Kilos x resistence/(Strength + Endurance x 10) = A.P. cost per 100 units

50 kilos times 2 divided by(5 Str. plus 4 End. times 10) + 100 units (2.5 hours) = 1.1 ACTIVITY POINTS

Kilos pulled may be any possible number. Resistence is figured on the following table. Strength and Endurance vary in accordance with the individuals SUB-VALUES.

RESISTENCE VALUE	EXPLAINATION
0	absence of any friction, vacume of space or similiar conditions.
1	limited friction, high technol-roller bearings, air suspension.
2	Cart or wagon with well lubricated wheels and well rounded.
3	cart or wagon with non round wheels and not well lubricated.
4	any object with more than 5% of it's surface area dragging in the dirt.
5	trees with many branches, something digging into the ground
6+	things that are even worse

PUSHING basically the same as pushing

THROWING (A.P. x 10) x Strength + Dexterity divided by Kilos = distance

1.0 ACTIVITY POINT times 10 x 5 Strength + 4 Dexterity divided by 1 Kilo + .1 unit = distance the object travels in meters or 54 meters.

ACTIVITY POINTS expended may not exceed the limit for .1 unit (10 seconds). Strength and Dexterity vary in accordance with the individuals SUB-VALUES. Kilos may not exceed number of kilos which may be lifted.

CLIMBING 20 - (2 x Strength) + Dexterity) x difficulty/10 = A.P. cost per 10 units

20 - 14(2x5 Strength + 4 Dexterity) x 5 difficulty divided by 10 = 3.0 ACTIVITY POINTS per 10 units (15 minutes)

Difficulty is determined by the referee using the scale on the opposite page. Strength and Dexterity vary in accordance with the individuals SUB-VALUES.

CLIMBING DIFFICULTY	EXPLAINATION
0	Normal or non-difficult terrain resolved on the movement ACTIVITY STATE rules rather than the climbing rules.
1	A steep though otherwise unobstructed path, or a set of moderately steep stairs.
2	Limited obstruction or a very steep set of stairs.
3	A broken hillside or obstructed path. A vertical ladder or climbing a tree of moderate difficulty.
4	A very steep hillside, difficult tree, or light cliff.
5	Mountainous, extremely difficult trees, boulder obstructions and medium cliffs.
6	A more difficult and obstructing version of 5.
7	Very mountainous, blocked by large boulders, brush, and other serious impediments to movement.
8	Heavy cliffs, extremely broken or rough terrain and heavy cliffs.
9	A more difficult version of 8.
10	Shear cliffs with handholds and difficult mountain climbing. Most climbs of a difficulty greater than 10 can not be made without special ENABLERS.

MOVEMENT The basic CONSTITUTION ACTIVITY STATE mavement rates apply to the more detailed movement conducted during the advanced CONSTITUTION uses of these rules. Effectively all that must be done is to divide the ACTIVITY POINT costs, time costs, and distance covered for the desired movement rate. This is discussed in detail in the Terrain Mapping SUB-SECTION of the ENVIRONMENT rules.

Other types of actions and activities may require specific formula, but they all follow this basic pattern, and I have not included more primarily because it is not my intention that these formula be used more than once in a blue moon by the game operator and never if possible by the players. They are confusing, and a pocket calculator or some other mathamatical device is worth it's weight in ENABLERS when using them. A quick familiarization with them should stand the game operator and players in good stead, and a complete set of rules of thumb whereby the costs derived from these formula can be quickly and easily approximated are included in the GAME OPERATOR'S SECTION.

The real function of these formula is to give the game operator and the players a place to go when they need to resolve the ACTIVITY POINT costs of an action or activity to within several tenths of an ACTIVITY POINT, or when the players dispute the ruling by the game operator on the ACTIVITY POINT cost of a given action or combination of actions or activities. The only time that they will be frequently needed is if a player or players achieve an extreme CONSTITUTION LEVEL or manage to obtain a CONSTITUTION SUB-VALUE higher than 8 or so.

COMMUNICATIONS and MEDITATION: These ACTIVITY STATES do not necessarily require the expenditure of any ACTIVITY POINTS, but the advanced CONSTITUTION rules and the capability to expend ACTIVITY POINTS in tenths makes it a more common occurence. The game operator will have to determine the ACTIVITY POINT costs of communication or meditation ACTIVITY STATE actions or activities based on the individual situations and circumstnaces. Several examples contained in the INTELLIGENCE SUB-SECTION will clarify this.

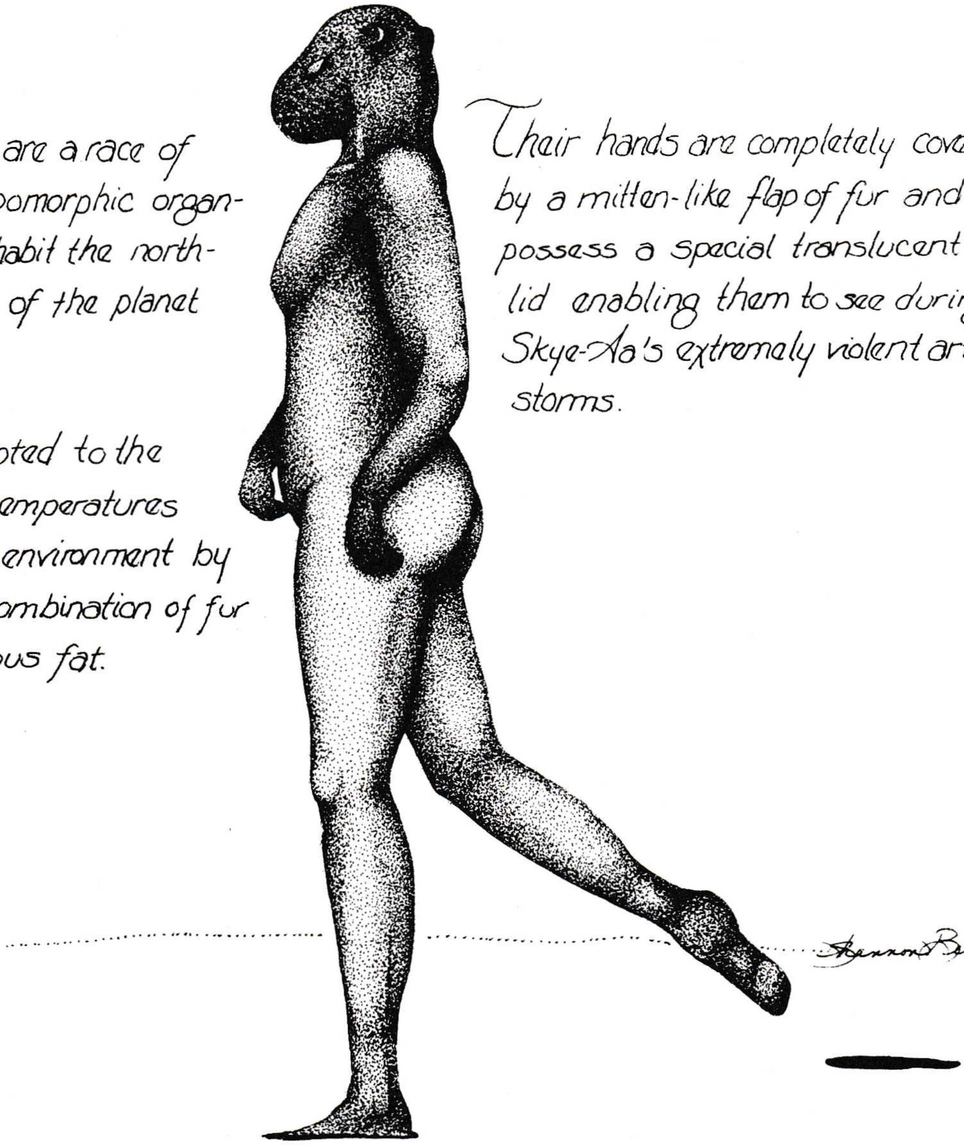
EXPLORATION: Effectively represents the expenditure of ACTIVITY POINTS to examine or study an area, object, or other source of interest. Exploration costs may vary widely, but the capacity to expend ACTIVITY POINTS in tenths makes it much easier for the game operator to assign costs in keeping with the precise amount of effort actually required to undertake and perform a given exploration. The only real condition is that at least one tenth (0.1) ACTIVITY POINT be expended per 10 units (15 minutes) to keep the exploration an active focus or influence to the players other activities, if any.

Keya-tau

The Keya-tau are a race of sentient, anthropomorphic organisms which inhabit the northern hemisphere of the planet Skye-Aa.

They have adapted to the seasonal cold temperatures of their frigid environment by developing a combination of fur and subcutaneous fat.

Their hands are completely covered by a mitten-like flap of fur and they possess a special translucent eye-lid enabling them to see during Skye-Aa's extremely violent artic storms.



Shannon Berger '78

PRACTICE AND TRAINING

The CONSTITUTION equivalent of the INTELLIGENCE Learning and Integration SUB-VALUE. This is the method by which an individuals ENABLERS and abilities may be improved or enhanced. The specific costs and requirements of practice and training vary depending on the specific objectives or intentions of the individual, but a general formula which can be modified to reflect the variations inherent in the different skills and techniques is provided below. Note that most skill and technique ENABLERS posess their own improvement requirements. The formula below is intended as a substitute for skills and techniques not represented by ENABLERS, not as a replacement for the ENABLER aquisition and improvement rules.

units/100 x Learning and Intergration SUB-VALUE + C.F. + A.P. = the percentage chance of the individual achieving .1 of an increase in skill level, information level, or aquiring a technique.

The CONCENTRATION FACTOR and ACTIVITY POINT ALLOCATIONS must be the average per practice and training ACTIVITY STATE undertaken by the individual if they are seperated from each other in time by one or more RECOVERY periods.
The percentage chance is computed and the results determined on percentile dice. Each time the player rolls the dice and attempts to secure a 10% advance in his/her information or abilities the number of units returns to zero and the formula above must be re-ignited by new expenditures and allocations of ACTIVITY POINTS, CONCANTRATION FACTORS, and time before another die roll may be made. Each time that a player tries to gain an advance and fails s/he gains an increase of one (+1) to their die roll. If they fail a second time they will increase the die roll by another one for a total of +2. This process continues until the player has finally achieved a 10% advance in his/her abilities or information. At this point the amount of time and all die roll modifiers resulting from previous failures are reduced to zero and the formula must be re-ignited as explained above.

The increase or improvement in SUB-VALUES follows the same pattern, except that each advance represents .01 or 1% of the next higher level, and for each number of units expended that is exual to or greater than a multiple of 1,000 the player recieves 1% additional advancement.

EXAMPLE: If a player is trying to increase his/her Dexterity SUB-VALUE and has spent 300 units (7.5 hours) practicing some approved Dexterity excercise then the formula may read something like this; 300/100 x 4 + 10 + 10 = 32. This means that the individual has a 32% chance of advancing .01 or 1% of the way to the next higher SUB-VALUE. If the same individual were to spend 4,500 units (9 days working 500 units a day) the formula would read 4,500/100 x 4 + 10 + 10 = 160. This means that the individual has a 160% chance of obtaining a .04 or 4% advance in his/her SUB-VALUE.

NOTE: The physical efficiency SUB-VALUE may not be altered using this game system.

The total number of advancements a player can make in his/her SUB-VALUE per die roll is .1 which represents the expenditure of 20 days under the circumstances listed in the example above.

The discussion of how to increase an individuals Physical Efficiance SUB-VALUE is not contained in this rule booklet, but the game operator may allow a version of the game system described above with the advancement per die roll equal to .001 of a Physical efficiency level and a limit to the total number of advancement portions which may be attained in any one die roll of .01 or 1%.

RECREATION

The INTELLIGENCE and RECOVERY rules discribe the benifits of recreation. For the purposes of the LEGACY game the decision to engage in recreational and non-directed persuits on the basic or advanced game levels is an asthetic one solely up to the players. I suggest that most recreational situations need never by played out. The player need only describe the nature of his/her activities and expenditures of time and ACTIVITY POINTS, and if the game operator agrees that the action or activity is indeed recreational then the player is credited with that many hours of relaxed, strenuous, or normal recreation to input to the INTELLIGENCE and RECOVERY game systems.

FABRICATION

The most broad and general ACTIVITY STATE next to stationary must be the fabrication ACTIVITY STATE. Any use or manipulation of environmental resources to create an object, artifact, or tool is considered a type of fabrication. The example of the Keya-Teu house building on page 38-40 is an example of an

ACTIVITY STATE combination which represents the fabrication of a living space but which is represented by a series of other work related ACTIVITY STATES. Fabrication is most frequently used in conjunction with the building or creating of ARTIFACTS represented by ENABLER CARDS and are explained in that SUB-SECTION.

RECOVERY and LIFE SUPPORT are discussed on page 49 of the CONSTITUTION SUB-SECTION.

SURVIVAL constitutes any action which is directly related or required to allow the organism to escape, overcome or modify some natural or unnatural barrier, obstacle, or process which threatens it with immediate extermination. As long as the requirement of immediate damger threatening life or sanity is meet any action or activity can be considered a survival action or activity. They are resolved in the same way as other actions and activities save that a special survival Dexterity die roll set must be rolled to determine wether the individuals normal abilities are enhanced or reduced due to the survival type of emphasis placed on the action or activity.

1.13.8 TARGETING MODULE

This rule describes possible additions which may be made to the targeting die roll and the function and uses of the target overlay represented below.

The targeting overlay is organized into a series of hexes numbered in a spiral with the lowest numbers the farthest from the center and the highest number, 100, in the exact center. Basically any time a player wishes to strike anything in the game with a thrown object or any other type of object which leaves the hand to produce an effect or cause damage, (this includes projectile and other gun type weapons) s/he rolls dice after placing the target overlay on a representation of the targeted object, and the number rolled indicates the hex of the overlay to which the projectile made it's way causing whatever effects it is capable of causing. The die roll may be modified by the specific weapon used and the skills and techniques of the individual. The target is represented by a silhoutte of the person or object of a size and proportion appropriate to the range of the target. The construction of silhouttes is discussed in the INTERACTIONS SUB-SECTION of the LEGACY rules.

This clear plastic overlay may also be used to target areas on the planets surface if the campaign or scenario includes artifacts or abilities capable of such things. It is simply placed over the planetary maps of whatever scale level with the 100 hex centered on the desired target.

The effects of wind may be represented by a drift of the hex struck in one of the six directions possible to the hexagonal matrix, and possible irregularities of the thrower or weapon itself may be represented in the same manner.

The two smaller hexes located on the bottom of the target overlay are included to assist the player and game operator in locating severe misses. If the number rolled after die roll modification is less than 10, then the small hex to the right indicates the location of the projectile. Depending on where the projectile lands the game operatoe may require that other percentile dice be rolled to determine which hexagon is struck in the large area in which the projectile missed.

The second hexagon on the bottom left is included for the amusement and possible use of people who like to roll 20 sided dice. It may be used in an interesting manner with miniature rules or in conjunction with the existing DUNGEONS AND DRAGONS game system. Discussion of this is included in the designer's notes.

Examples and further discussion of the target overlay are included in the interactions SUB-SECTION, but the overlay and it's introduction are included here due to it's function as a rules module of one or more ACTIVITY STATES and the requirement that the LEGACY rules be consistently organized and presented. I would personally reccomend that the overlay be removed from the binding and kept in a seperate but known place for reference when reading the interaction rules and use in the course of play. However, if the game operator wishes to reduce the likelyhood of loosing it the target overlay may be kept inside this rules booklet and the maps or silhouttes placed underneath it to determine the results of ranged weapons or effects.

Players and the game operator may think of many other uses for this targeting overlay, and I encourage them to include such ideas and rules in the game and the scenario or campaign in which they are involved. It has already occured to me to use the overlay as an aid to mapping, random table for locating weather effects, a diabolically accurate simulation of the sight for a computer assisted targeting system and a method of making player characters nervous. The later is accomplished by taking it out and smiling while asking which member of a group or party is first in line and most exposed.

1.14 OTHER EFFECTS ON CONSTITUTION

There are a wide variety of things which can increase or reduce an individuals CONSTITUTION abilities and characteristics. Not all of these are mentioned or listed in the LEGACY rules, but the two most important, disease and ageing are described below. Rules covering the effects of drugs may be found in the FLORA AND FAUNA SUB-SECTION of the ENVIRONMENT rules, and the effects of STATUS are described starting with the next page.

1.14.1 DISEASE OCCURENCE

The specific diseases which are to be included in the game, if any, must be determined by the game operator before the beginning of the scenario or campaign, but the proportions of occurence of the various general categories of disease are determined by the table below. Though different ecosystems may be assumed to posess different mixtures and percentages of occurence for the dofferent types or families of disease I have made Earth and Skye-Aa similiar in this respect for the sake of conserving space.

- DISEASE OCCURENCE TABLE -

DIE ROLL	FLORA PARASITE	FAUNA PARASITE	BACTERIA	VIRAL	CELLULAR	METABOLIC	NUTRIT.
1-10	55+	45+	35+	55+	75+	50+	?
11-30	75+	60+	50+	70+	90+	60+	?
31-70	90+	80+	70+	95+	99+	80+	?
71-95	95+	90+	80+	99+	100	95+	?
96-99	99+	95+	90+	100	-	99+	?
100+	100	99+	95+	-	-	100	?

The numbers indicated as results reflect the number which must be rolled or exceeded on percentile dice before the individual is actually considered to have contracted the disease or diseases. The die roll required to initiate the table should be made once every 100 days or sooner if indicated by the game operator. Additionally if the player was exposed to a active culture or source of one of the families of disease s/he may be required to roll percentile dice on the table above and then roll again for only the family of disease s/he was exposed to.

The nutrition defficiency disease is unlike the others in that it may not be cought and can never be considered contagious. The game operator will determine wether or not the diet of the player contains all of the necessary nutrients required to avoid the nitrition defficiency effects. If some aspect is missing the game operator should start enforcing the effects as required by the specific type of defficiency.

If one of the families of disease above is rolled (or more than one for that matter) the game operator should determine which specific disease or set of effects is involved using another table, dice, or any other method considered appropriate by the game operator. I reccomend that the game operator devise a list of diseases like those examples listed in the Disease Resistence SUB-VALUE portion of the CONSTITUTION rules, but many game operators may feel that this is to much trouble. The important thing is to find a method which will treat the players impartially and based on their physical structure and metabolism rather than the emotions and mood of the game operator.

1.14.2 AGEING

Time passes, and rather than use the decay rate rules applied to other components of the LEGACY game a special ageing table is used to determine the effects of the passage of time and the deterioration of the body. The table below must be considered as an example due to the impact of medicine, excercise, the overall effects of the simulated environment, and other factors. I reccomend that game operators devise their own ageing tables in all sitautions.

AGE OF CHARACTER	CON. VALUE	CON. LEVEL	INT. VALUE	INT. LEVEL	CHARISMA
1 - 10 years	100+	130+	100+	110+	96+
11- 20 years	98+	110+	96+	100+	91+
21- 30 years	95+	100+	91+	95+	81+
31- 40 years	81+	91+	76+	86+	91+
41- 50 years	51+	81+	40+	81+	96+
51- 60 years	21+	51+	11+	61+	98+
61+ years	06+	21+	01+	31+	100+

The numbers on the ageing table followed by plus signs indicate the number which must be equaled or exceeded on percentile dice in order to suffer a reduction in the value or level indicated. Value reduction or decreases are by 10 points and level reductions or decreases are for one level each. Thus a player having an especially bad year may loose more than one level if both level and value are reduced. The CONSTITUTION or INTELLIGENCE VALUES must reflect the LEVEL of the player, and if the manditory reduction equals or exceeds a reduction of 10 caused by ageing then the ageing table reduction to the value is disregarded. Otherwise the individuals value is reduced by 10.

Under normal circumstances an ageing table such as the one on the proceeding table is consulted once or twice during a ten year period, but particular actions or metabolic conditions may prompt the game operator to require more frequent rolls.

1.15 RECOVERY

The RECOVERY rules describe how a player may regain ACTIVITY POINTS once they have been expended and the effects and manipulations of STATUS. For the most part the recovery rules simulate the acts of sleep and healing, though aspects of other regenerative actions and activities such as the RECREATION ACTIVITY STATE are also described. Though recovery is a commonly undertaken action it is complex enough to require it's own body of rules explaining and giving examples of what a RECOVERY PERIOD is and the effects it can have on the STATUS and ACTIVITY POINTS AVAILABLE for an individual.

1.15.1 STATUS

The concept of fatigue levels has aleady been introduced in the Endurance SUB-value rules, but several other types of status have yet to be explained. The different STATUS levels which an individual may posess in the basic CONSTITUTION rules are listed below along with a description of their effects.

RESTED - This indicates that an individual has expended fewer than 10% of his/her ACTIVITY POINTS and recieves a bonus of being able to expend one (1) ACTIVITY POINT more than she/he would normally be allowed during a unit (1.5 min.) or more of time, or else reflects a 1 ACTIVITY POINT addition to an ACTIVITY STATE of the players choice which s/he need not expend, i.e. it is not deducted from the total number of ACTIVITY POINTS AVAILABLE to the individual. Adds five to basic activity die roll.

NORMAL - This represents the lack of special additions or subtractions to any of the players CONSTITUTION or INTELLIGENCE abilites or basic ability die roll.

FATIGUE I - This represents that more than 50% of the individuals ACTIVITY POINTS have been expended. Reduces the basic activity die roll by five and the RECOVERY die roll by 10.

FATIGUE II - This represents that all of the ACTIVITY POINTS normally available to the individual due to his/her CONSTITUTION LEVEL have been expended. Reduces the basic activity die roll by 25 and the RECOVERY die roll by 30.

FATIGUE III - Represents the effect on the metabolism of severe over exertion. The game operator will give the player a warning if s/he is in danger of triggerin a FATIGUE LEVEL III. Causes a reduction in the basic activity die roll of 50, a reduction in the RECOVERY die roll of 50, and a decrease in the individuals metabolic STATUS of 1.

DISEASE - Effects vary with the disease, but the METABOLIC STATUS and ACTIVITY POINTS AVAILABLE are frequently effected.

WOUNDED - represents damage to the individuals metabolism. The first wound causes a reduction in the basic activity die roll of 30, a reduction in the RECOVERY die roll of 70, and a decrease in the individuals METABOLIC LEVEL of 1. Subsequent wounds reduce the basic activity die roll by another 10, the RECOVERY die roll by another 30, and the METABOLIC STATUS by another 1.

STATUS is kept track of on the CHARACTER RECORD SHEET, and STATUS may only be changed by the expenditure of ACTIVITY POINTS or the completion of a RECOVERY PERIOD.

1.15.2 THE RECOVERY PERIOD

An individual may initiate a RECOVERY PERIOD at any time simply be informing the game operator that s/he is doing so. No ACTIVITY POINTS may be expended during a RECOVERY PERIOD, and the individual may not engage in any other ACTIVITY STATES but meditation without triggering the end of the RECOVERY PERIOD. The game operator sould track of how many 100 unit (2.5 hour) periods the RECOVERY PERIOD has lasted befor being voluntarily ended by the player, and the player recieves one percentile dice roll for each 100 unit (2.5 hour) period. The numbers on the die rolls are added up, and if their sum equals or exceeds 100, then the player is considered to be fully recovered except in the case of two or more wounds. If the number rolled on the various die rolls after die roll modifications is less than 100 the individual will only recieve ACTIVITY POINTS proportional to the sum of the numbers rolled treated as a percentage. Rather than explain this further an example will reveal all.

EXAMPLE: If an individual with otherwise average characteristics and abilities were to expend all 20 of his/her ACTIVITY POINTS before initiating a RECOVERY PERIOD the following might be the result. The individuals RECOVERY die roll is being reduced by 30, and the individual decides to engage in RECOVERY for 400 units (10 hours) to be certain that s/he has regained all of his/her ACTIVITY POINTS and removed the FATIGUE LEVEL II from his/her CHARACTER RECORD SHEET. Percentile dice are rolled for each 1-0 unit (2.5 HOUR) period within the RECOVERY PERIOD, in this case 4 die rolls are indicated. The individual roll a 52 the first time and subtracting 30 yeilds a 22. The second, third and fourth die rolls are a 23, 59, and 37 respectively. The 30 for the FATIGUE LEVEL II is only subtracted once, so the total of 22+23+59+37=141, more than one hundred and sufficient to recover all of the individuals ACTIVITY POINTS and restore the individual to RESTED STATUS.

Let's suppose that the same individual elected to only engage in a RECOVERY PERIOD for 300 units (7.5 hours) s/he would only be allowed three(3) die rolls. The first of these is a 23, which yields a negative 7 after subtracting 30 for FATIGUE LEVEL II. The second of these die rolls is a 34, which added to negative 7 yeilds a 27. The third and final die roll is a 48, which added to 27 yields a 75, less than the 100 required to completely restore the individual. This indicates that after 300 units (7.5 hours) of recovery the individual possesses inly 15 of his/her normal 20 ACTIVITY POINTS (75%) and is NORMAL rather than RESTED STATUS. If the individuals chooses s/he may begin the new day in this manner and with this STATUS and ACTIVITY POINTS AVAILABLE, or s/he may elect to initiate a new RECOVERY PERIOD for at least another 100 units.

In all circumstances except two or more wounds the RECOVERY die roll modifiers only effect the first die roll. In the case of two or more wounds the -30 is deducted from all RECOVERY die rolls. This means that an individual with 2 wounds would deduct 100 from his/her first RECOVERY die roll and 30 from each successive die roll.

The METABOLIC STATUS of an individual is reflected and recovered in the same basic manner as the ACTIVITY POINT and STATUS RECOVERY described above. If 100 or more is attained in the die rolls the individuals METABOLIC STATUS is considered to be returned to normal, if less than 100 is accumulated the individuals METABOLIC STATUS is returned to it's original level in accordance with the percentage reflected in the sum of the die rolls obtained.

There exists something called a SECONDARY RECOVERY PERIOD which may only be initiated after a primary RECOVERY PERIOD lasting at least 200 units (5 hrs.) The SECONDARY RECOVERY PERIOD allows individuals to fill in the gaps which may remain from the initial RECOVERY PERIOD. Only fifty (50) or greater need be rolled on percentile dice to complete the recovery, but the individual has only one chance to roll the fifty or higher. This is due to the independent nature of each seperate SECONDARY RECOVERY PERIOD. Each SECONDARY RECOVERY PERIOD lasts for a maximum of 100 units (2.5 hours) and the individual either achieves full RECOVERY or else must initiate another SECONDARY RECOVERY PERIOD or go short.

SECONDARY RECOVERY PERIODS are not available to individuals possessing either disease or wounded STATUS.

EXAMPLE: A Keya-Teu who has an average CONSTITUTION LEVEL expends 22 of the 25 ACTIVITY POINTS AVAILABLE to him/her. This causes FATIGUE LEVEL I STATUS and reduces the individuals RECOVERY die roll by 10. The Keya-Teu elects to RECOVER for a period of 300 units (7.5 Hrs.) and begins the RECOVERY PERIOD. After only 100 units (2.5 Hrs.) have passed the game operator tells the Keya-Teu player that s/he has been awakened by grunting and pawing sounds coming from the bushes nearby. The Keya-Teu is forced to defend him/herself from a wanderin GORRIS, in the process of which s/he is wounded. Before the combat starts the game operator must determine the effects of the RECOVERY PERIOD which were completed by the Keya-Teu before the GORRIS interrupted. This is done by rolling percentile dice and subtracting by 10 for the FATIGUE LEVEL I. The Keya-Teu rolls a 58, which minus 10 yields 48 or approximately half. The game operator determines that this represents the return to NORMAL STATUS and the recovery of 12 ACTIVITY POINTS meaning that the player has a total of 15 ACTIVITY POINTS AVAILABLE, 12 recovered and 3 unspent before initiating the RECOVERY PERIOD.

A battle is fought using the combat rules contained in the interaction SUB-SECTION. In the course of the battle the Keya-Teu expends 9 ACTIVITY POINTS, bringing him/her back to FATIGUE LEVEL I and a WOUNDED STATUS. The threat from the GORRIS dealt with the Keya-Teu elects to initiate a new RECOVERY PERIOD to try to heal the wound and regain the missing ACTIVITY POINTS. S/he may not initiate a SECONDARY RECOVERY PERIOD due to the WOUND STATUS.

The new RECOVERY PERIOD BEGINS, and the Keya-Teu elects to go for 400 units (10 hours) before determining the results. Percentile dice are rolled at the end of the period, and the first number rolled is reduced by 40 for the combined effects of the WOUND and FATIGUE LEVEL I STATUS. If the first number rolled by the Keya-Teu is 71-40=31, and the subsequent numbers rolled are 26, 41, and 03, the total rolled would be 101 or just enough to indicate full RECOVERY of STATUS and ACTIVITY POINTS.

Temporary increases and decreases to the individuals CONSTITUTION LEVEL and CONSTITUTION VALUE may be recovered in roughly the same manner as described above and on the preceeding pages. Each reduction in the CONSTITUTION VALUE causes an equivelent reduction or subtraction from the RECOVERY die roll equal to the amount of the temporary increase or decrease. In a like manner any temporary increase or decrease in the individuals CONSTITUTION LEVEL causes an equivelent addition or subtraction of 25 from the RECOVERY die roll.

Other aspects and possibilities of the basic RECOVERY rules will have to be determined by the game operator as they arise, due to the unpredictable and largely varied possible circumstances under which individuals will attempt to restore and recover lost CONSTITUTION abilities and characteristics.

The RECOVERY rules also have applications to the INTELLIGENCE game rules, but this is discussed in the INTELLIGENCE SUB-SECTION in a few pages.

1.15.3 THE ADVANCED CONSTITUTION STATUS

The ADVANCED STATUS categories are basically an expanded version of the basic categories described on page 49. There are more and the definitions are expressed in terms of the CONSTITUTION SUB-VALUES, but they are handled in much the same way. The various STATUS categories are listed below along with a listing of their effects.

DEATH - Can not be changes by any of the RECOVERY rules. No ACTIVITY POINTS may be expended, and no actions or activities initiated.

FULLY RESTED - The individual may expend 100% more ACTIVITY POINTS than the normal limitation imposed by the Strength SUB-VALUE. Increases the basic activity die roll by 5 and the RECOVERY die roll by 30.

RESTED - The individual may expend 50% more ACTIVITY POINTS than the normal limitation imposed by the Strength SUB-VALUE. Increases the basic activity die roll by 2 and the RECOVERY die roll by 10.

NORMAL - Indicates the absence of any RECOVERY or other die roll modifiers due to the effects of rest or fatigue.

FATIGUE LEVEL 1 - Reduces the RECOVERY die roll by 5.

FATIGUE LEVEL 2 - Reduces the RECOVERY die roll by 10.

FATIGUE LEVEL 3 - Limits ACTIVITY POINTS which may be expended to 50% of normal limits. Reduces the RECOVERY die roll by 25.

FATIGUE LEVEL 4 - Limits ACTIVITY POINTS which may be expended to 10% of normal limits. Reduces RECOVERY die roll by 50.

FATIGUE LEVEL 5 - No ACTIVITY POINTS may be expended. Triggers automatic RECOVERY PERIOD. Reduces the RECOVERY die roll by 100. The individual rolls a single ten sided die. If the number rolled is higher than the individuals Endurance then that individual is considered to have sustained a MAJOR WOUND. If the number is equal to the Endurance SUB-VALUE then the individual is considered to have a WOUND. If the number is lower than the individuals Endurance the individual suffers no additional effects.

WOUND - The first wound reduces the RECOVERY die roll by 10. Each subsequent WOUND reduces the RECOVERY die roll by 40.

MAJOR WOUND - The first MAJOR WOUND reduces the RECOVERY die roll by 50. The second MAJOR WOUND reduces the individual to COMA STATUS.

COMA - Any individual in COMA STATUS has 200 deducted from their RECOVERY die roll and must roll percentile dice every 100 units (2.5 Hrs.) to determine if the COMA ends, continues, or the individual dies. Results are cross-indexed on the table below.

1-10	11-90	91-100
DEATH	CONTINUED COMA	REGAIN CONSCIOUS

METABOLIC STATUS indicates the organisms immediate health and vigor. Any increase or decrease in an individuals METABOLIC STATUS will have a 10% impact across the board on their CONSTITUTION abilities and values. This change is temporary and only lasts as long as the change in the METABOLIC STATUS, but all types of CONSTITUTION indicators as well as ACTIVITY POINTS are effected.

- METABOLIC STATUS -

HUMAN		KEYA-TEU	
Poor	4	Poor	6
Average	5	Average	7
Good	6	Good	8

1.15.4 ADVANCED RECOVERY

In addition to recovering ACTIVITY POINTS, STATUS, and temporary increases or decreases to CONSTITUTION LEVEL the advanced RECOVERY rules must also account for temporary increases and decreases to the individuals SUB-VALUES. These are handeled in the same basic manner as the basic RECOVERY rules, save that the period of time associated with each die roll is 10 units (15 Min.) and the number which must be rolled is 1,000. Effectively this is just an expansion by a factor of ten of the basic RECOVERY rules, but it allows a more precise definition of the ACTIVITY POINTS AVAILABLE to an individual over the span of time less than 100 units (2.5 hours). The number of ACTIVITY POINTS and other effects of the advanced RECOVERY PERIOD is related to the percentage of 1,000 attained by the sumation of die rolls and die roll modifiers. Die roll modifiers, if any, are applied to each die roll made during the first ten 10 unit (15 Min.) time periods of the advanced RECOVERY PERIOD. This produces the same effect as the basic RECOVERY rules but streches it out across the entire first 100 units (2.5 Hrs.).

EXAMPLE: A Human with an average CONSTITUTION LEVEL expends 18.5 ACTIVITY POINTS triggering FATIGUE LEVEL 2. In addition s/he is effected by a type of poisonous FLORA which s/he accidentally ingested which had the effect of temporarily reducing the individuals CONSTITUTION LEVEL by one. Thus all of the Humans SUB-VALUES except Physical Efficiency are lower than the values associated with an average CONSTITUTION LEVEL. In order to recover using the advanced RECOVERY rules the player must increase all of his/her SUB-VALUES except Physical Efficiency. This is accomplished in the following manner.

The player initiates a RECOVERY PERIOD and indicates that it will be resolved using the advanced RECOVERY rules. S/he intends that the RECOVERY PERIOD last a total of 250 units (6.25 Hrs.) but we will examine the effects along the way at intervals. FATIGUE LEVEL 2 will reduce the RECOVERY die roll by 10 for the first ten rolls of the dice, and the player must achieve 1,000 before s/he is considered to be completely recovered. Additionally the game operator may include additional RECOVERY die roll modifiers representing other effects of the poisonous FLORA which the Human ingested. If the players first five die rolls were 23, 57, 59, 34, and 81 this results in a net value after 50 units (1.25 Hrs.) of 254. This amount is reduced by 50, 10 for each die roll representing the effects of FATIGUE LEVEL 2, which leaves a net result of 204. This is almost exactly one fifth of the amount required for the complete recovery of the individuals CONSTITUTION abilities and characteristics, and if for some reason the Humans RECOVERY PERIOD was interrupted at this point the game operator would restore to him/her one fifth or 3.7 ACTIVITY POINTS and one fifth of the players SUB-VALUES which in this case might be reflected by raising one of them by one point. Which SUB-VALUE would be first raised might be determined by the effects of the poisonous FLORA, or may be determined randomly by the game operator.

Assuming that the RECOVERY PERIOD was not interrupted at this point it would continue either until the full 250 units (6.25 Hrs.) had passed or until it was interrupted by some other type of effect or influence.

Many of the important reasons for having an advanced RECOVERY PERIOD are related to the INTELLIGENCE rules which are described in the next SUB-SECTION.

Admittedly the description of the RECOVERY PERIOD is far from precise, but it must be understood that the advenced RECOVERY PERIOD is intended to slow down the passage of die rolls and the accumulation of a complete recovery to allow the game operator time and opportunity to input the effects of environmental or other factors which do not lend themselves to inclusion in the basic RECOVERY PERIOD. Also the advanced RECOVERY PERIOD provides a more precise definition of exactly how many ACTIVITY POINTS and other characteristics the player possesses at any given moment of the RECOVERY PERIOD. This is often important, and is clearly an improvement over the need to approximate the results to the closest 100 unit (2.5 Hrs.).

Common sense must be employed by the game operator in administering the RECOVERY rules to insure that the nature and type of recovery is consistent with the specific nature of the fatigue, wound, or disease. If the game operator chooses the option of developing rules describing the effects of specific diseases and wounds these descriptions must include the nature and effects of the RECOVERY period in attempting to heal or negate their effects. This is the area in which the game operator may display the most initiative and creativity if s/he is interested.

1.16 GENETICS

The construction of a table which allows players to fall heir to particular combinations of genetic heritage is an interesting and mind expanding undertaking. The effects of random mutation can be realitively easily simulated by a simple table. This is not as interesting, however, as the overwhelming majority of random mutations are harmful rather than helpful to the organism.

There are estimated to be over 2,000 genetically inherited diseases currently existing on the planet Earth which apply to or effect the Human race. This provides more than enough material for genetic burns or reductions in the abilities or characteristics of players. At the same time there exist a number of genetic strains which tend to increase the strength, intelligence, or any one of the various possible VALUES or SUB-VALUES represented by the LEGACY rules. The game operator should carefully consider how much genitics s/he wants in the campaign or scenario and act accordingly. The most frequent use of genetics is in the form of a table which is consulted when a players character is first determined. This table identifies a genetic line which may include burns, benifits, or some combination of the two which effect the players abilities and characteristics and which may be passed along to the players children.

Unfortunately this is another area in which extensive tables included in these rules would do more harm than good, but an example table is shown below indicating the possibilities of a genetic game system incorporated into the LEGACY game.

DIE ROLL	CON. VALUE	INT. VALUE	CHR. VALUE	Str.	Lea.	Ldr.	Dis.	Mem.
1-5	-20	-	-	-1	+1	-	-1	+1
6-20	-5	-1	+2	-	-	+2	-	-1
21-30	-	+5	-10	-	-1	-	+2	-
31-50	+5	+5	-	+1	-	-	-1	-
51-60	-	-	+20	-	-	+3	-	-
61-90	-	+10	-	-1	+2	+1	-	-1

And so on. Rather than follow any specific curve or formula the die rolls indicate a particular combination of genes which tend to increase or decrease the overall values or sub-values, physical structure or appearence, or any other factor which can reasonably be assumed to be effected by genetics. The possibility also exists that an individual may be a "carrier" of a particular genetic strain or trend without experiencing any of the effects him/herself.

I reccomend that if the game operator is really interested in the inclusion of genetics into the game that s/he read a good book or encyclipedia article on the subject, and that s/he be prepared for frequent and penetrating modifications of any genetices table used as the players intermix and reproduce with a variety of player and non-player characters which also may possess some type of unusual or significant genetic effects. I have personally included such rules in the playtest of the LEGACY rules, and though I found that they added substantially to the interest and excitement of the game they also added substantially to the complexity and time consumption aspects of running the game.

1.17 NON SIMULATED ASPECTS OF CONSTITUTION

Not represented in this rules booklet are the aspects of reproduction and other types of physical interactions other than working together and having combat or conflict. This is a failing of virtually all role assumption games, and in the case of the LEGACY game system is more a function of lack of space than it is lack of tested ideas. I caution game operators to be careful in including these aspects in the game in anything more than a very abstract sense due to their interlocking effects on STATUS, EMOTION, personal interactions, and a host of other aspects of reality which are already represented in this and other role assumption games. If the game operator is insistent that such rules by included and used I can only urge that they be carefully thought out and that all of the effects on the behavior and emotions of players and non-players be at least evaluated and considered.

Aside from the portions described above the LEGACY CONSTITUTION rules cover either briefly or in detail more of the aspects of the functioning of the physical structure and metabolism of living organisms than any other role assumption game I know of. If the game operator combines the basic and advanced inter-relationships of the VALUES and SUB-VALUES described in these 40 odd pages with his/her own thought and perceptions of these areas s/he is sure to emerge with an interesting but still playable simulation of the behavior and capabilities of the living organism.

I regret that the areas explored in the CONSTITUTION SUB-SECTION could not have been explained and described more fully then they were, but the CONSTITUTION SUB-SECTION is already twice as long as the entire GAME OPERATOR'S SECTION, and all things must come to an end. If another volume of rules is published more information on CONSTITUTION, REPRODUCTION, and GENETICS will be included.

INTELLIGENCE

1.21 INTELLIGENCE VALUE

Each individual organism possesses a set of numerical characteristics which indicate that organisms capacity to perform the various actions and activities possible within the structure of the LEGACY rules. INTELLIGENCE pertains to the central nervous system functions of perception, integration, and reaction to environmental stimulous.

The INTELLIGENCE VALUE is subdivided into INTELLIGENCE LEVELS which provide specific capabilities and limitations within which a given organism must function. The INTELLIGENCE VALUE is a decimal number ranging from 0 to 200 which may be gradually increased or decreased as a result of experience, training, or environmental effects. The INTELLIGENCE LEVEL is a category of ability based upon an individuals INTELLIGENCE VALUE. INTELLIGENCE LEVELS may be temporarily increased due to the effects of STATUS, drugs, diseases, or emotional state of the individual. Additionally there is a possibility of insanity/delusionary perception, thought or behavior which may effect the functioning of the players or non-players INTELLIGENCE capabilities.

1.21.1 The individuals INTELLIGENCE LEVEL should roughly reflect the individuals INTELLIGENCE VALUE, though this relationship is not so strict as that between CONSTITUTION VALUE and LEVEL. Basically the INTELLIGENCE VALUE and LEVEL should be in accord unless one of them has been temporarily effected by STATUS, drugs, disease, emotion, or other game operator authorized inputs. It is however, possible for the INTELLIGENCE VALUE and INTELLIGENCE LEVEL to get out of synchronization with each other under certain circumstances, and if this happens the player and game operator will be forced to work with the inconsistencies and apparent paradoxes which may insue.

- INTELLIGENCE TABLE -

HUMAN			KEYA-TEU		
INT. VALUE	INT. LEVEL	DEFINITION	INT. VALUE	INT. LEVEL.	DEFINITION
0	Mindless,blank	No central nervous system activity other than heartbeat, respiration, etc.	0	death	The Keya-Teu have no autonimous nervous system as Humans.
1-10	Extremely poor	Little or no awarness of the surroundings and environment.	1-5	Extremely poor	Total paralysis of thought processes and body.
11-30	Poor	Lower than average INTELLIGENCE.	6-20	Poor	Little or no awarness of surroundings.
31-70	Average	Expected INTELLIGENCE for Humans.	21-80	Average	Statistically common INTELLIGENC
71-90	Good	Higher than average INTELLIGENCE.	81-95	Good	Higher than average INTELLIGENCE.
91-100	Exceptional	Very high INTELLIGENCE.	96-120	Exceptional	Very high INTELLIGENCE.
101+	Extreme	Special INTELLIGENCE abilities.	121+	Extreme	Special INTELLIGENCE abilities.

1.21.2 An individuals INTELLIGENCE LEVEL may be temporarily increased or decreased due to the effects of STATUS, drugs, disease, emotion, or other game operator authorized inputs. The degree and circumstances associated with such an increas or decrease are described in the applicable rules, but temporary effects to the INTELLIGENCE LEVEL are always associated with a "DURATION OF EFFECT" which indicates how long a period of time must pass before an INTELLIGENCE LEVEL returns to it's original state. Like temporary effects to the CONSTITUTION LEVEL this is accomplished during a RECOVERY PERIOD after sufficient time has passed.

1.21.3 An individuals INTELLIGENCE VALUE may be permanently increased or decreased due to the effects of STATUS, drugs, disease, emotion, or other game operator authorized inputs. The degree and circumstances associated with such increases and reductions to the INTELLIGENCE VALUE are described in the applicable rules, and are NOT associated with a "DURATION OF EFFECT" of any kind. If the increase or decrease in the INTELLIGENCE VALUE brings the VALUE above or below the number associated with a particular INTELLIGENCE LEVEL, then that LEVEL may be subject to increase or decrease also. The decision as to wether the INTELLIGENCE LEVEL is increased or decreased to correspond is left in the hands of the game operator, who should take into account the causes of the increase or decrease and the current INTELLIGENCE VALUE and LEVEL of the player or non-player.

A list of the causes and effects of all permanent increases and decreases to a players INTELLIGENCE VALUE should be kept as some of them conflict or negate the effects of others. Space is provided for this purpose on the back of the ADVANCED CHARACTER RECORD SHEET, or it may be written in the space for remarks on the BASIC CHARACTER RECORD SHEET.

1.21.4 The capabilities of an individual are simulated in several ways using the basic INTELLIGENCE rules. The first and most frequently used of these are the INTUITIVE LEAP and the LEAP OF LOGIC. The specific results obtained from these methods of obtaining and processing information are contained in the INFORMATION SUB-SECTION, but their basic mechanics are introduced here.

The INTUITIVE LEAP represents the ability of an individual to spontaniously arrive at a conclusion without prior possession of much if any background information or the intervention of a conscious reasoning process. Using the INTUITIVE LEAP it is possible for a character to translate a written message or to guess the combination to a lock when an exploration of the logical possibilities would have taken a nearly infinite amount of time from the standpoint of the game. A player makes an INTUITIVE LEAP by announcing his her intention to do so and rolling percentile dice. The die roll result is added to the individuals INTELLIGENCE VALUE and this number is used to determine the result if any as described in the INFORMATION SUB-SECTION. The INTUITIVE LEAP may be tried as many times as the individual likes, but each time that s/he tries before undergoing a RECOVERY PERIOD lasting at least 100 units (2.5 Hrs.) reduces the effectiveness (die roll) of the INTUITIVE LEAP by ten, (-10).

The LEAP OF LOGIC simulates the ability of a sentient organism to follow a progression of information and theories to a logical conclusion without needing every piece of information in between. Effectively this means filling in the gaps in a set of information to determine what it all means. Using the LEAP OF LOGIC it is possible to determine the probable outcome or significance of an apparently unrelated set of facts. A player makes a LEAP OF LOGIC by announcing his/her intention to do so and rolling percentile dice. The die roll result is added to the individuals INTELLIGENCE LEVEL, with each LEVEL of INTELLIGENCE worth the value listed on the table below. The combination of these two numbers is used to determine the result, if any, of the LEAP OF LOGIC as explained in the INFORMATION SUB-SECTION. The LEAP OF LOGIC may be attempted only once by the individual on a particular subject or set of information unless a new, significant piece of information is obtained by the player. The game operator is the sole determiner of what is considered significant.

INTELLIGENCE LEVEL	LEAP OF LOGIC DIE ROLL MODIFIER
Mindless, Death	-100
Extremely Poor	+5
Poor	+10
Average	+40
Good	+60
Exceptional	+75
Extreme	+80

Of course the crux of the biscuit lies in the exact phrasing of the LEAP. This is discussed in the INFORMATION SUB-SECTION but cannot be emphasized to strongly. No matter how high the die roll it can be easily wasted if the character has declared his/her LEAP OF LOGIC or INTUITIVE LEAP in a frivolous or nonsensical manner. Since the declaration of intention and the statement of purpose and inputs must be made prior to the die rollthere is no way of knowing just how poorly a question can be phrased until an extremely high die roll yeilds nothing but useless or self-evident information. This will happen only a few times before the player characters will come to their senses and be more careful about what they say and how they say it when making a LEAP.

1.21.5 CONCENTRATION FACTORS are the coin with which the thinking and reasoning powers of the mind are simulated. Rather than being expended and then replaced like ACTIVITY POINTS, CONCENTRATION FACTORS simply exist within the individuals mind and they are moved or allocated from place to place representing the changes in the area of thought or consideration which the mind is engaged in.

The number of CONCENTRATION FACTORS AVAILABLE to an individual for the purposes of allocation is determined by that individuals INTELLIGENCE LEVEL as indicated on the table below.

- CONCENTRATION FACTOR TABLE -

HUMAN		KEYA-TEU	
Mindless	0 C.F.	Death	0 C.F.
Extremely Poor	4 C.F.	Extremely Poor	1 C.F.
Poor	7 C.F.	Poor	4 C.F.
Average	10 C.F.	Average	9 C.F.
Good	12 C.F.	Good	15 C.F.
Exceptional	15 C.F.	Exceptional	18 C.F.
Extreme	19 C.F.	Extreme	20 C.F.

1.21.6 There are CONCENTRATION FACTOR allocations associated with each of the different ACTIVITY STATES described in the CONSTITUTION SUB-SECTION. These CONCENTRATION FACTOR allocations represent the minimum amount of concentration required to perform or complete the action or activity represented by the ACTIVITY STATE. Many of these possible allocations are followed by a plus sign indicating that additional benifits may be derived by the allocation of more CONCENTRATION FACTORS than the minimum indicated. For discriptions of the different ACTIVITY STATES and the rules describing their effects see other rules SUB-SECTIONS except in the case of COMMUNICATIONS and MEDITATION which are described in this rules SUB-SECTION.

ACTIVITY STATE	CONCENTRATION FACTOR ALLOCATION	RULES DESCRIBING RESULTS
Foraging	1+	Foraging - Flora and Fauna SUB-SECT.
Hunting and Gathering	5+	Hunting and gathering, same as above
CULTIVATION	2	Cultivation - Flora and Fauna SUB-SEC.
Herding	3+	Herding - Flora and Fauna SUB-SECTION
Harvesting and preserving	4	same as above
STATIONARY	0	CONSTITUTION - ACTIVITY STATES
MIGRATION	2	CONSTITUTION - ACTIVITY STATES
TREK	3	CONSTITUTION - ACTIVITY STATES
HIKE	4	CONSTITUTION - ACTIVITY STATES
MARCH	5	CONSTITUTION - ACTIVITY STATES
Trail breaking	variable	ENVIRONMENT - TERRAIN MAPPING
Load bearing	0+	CONSTITUTION - ACTIVITY STATES
Light work	4+	CONSTITUTION - ACTIVITY STATES
Medium work	4+	CONSTITUTION - ACTIVITY STATES
Heavy work	5+	CONSTITUTION - ACTIVITY STATES
COMMUNICATIONS	1+	INFORMATION SUB-SECTION
Meditation	1+	INTELLIGENCE SUB-SECTION
Exploration	5+	INTELLIGENCE - PERCEPTION RULES

Practice and training	variable	INTELLIGENCE - Learning and Integ.
Recreation	0+	CONSTITUTION - ACTIVITY STATES
Fabrication	1+	ENABLERS - FABRICATION
RECOVERY	0	CONSTITUTION - RECOVERY
LIFE SUPPORT	(1) pre-allocated	CONSTITUTION - ACTIVITY STATES
SURVIVAL	variable	CONSTITUTION - DEXTERITY SUB-VALUE
COMBAT	variable	INTERACTIONS - CONFLICT

1.21.7 BASIC PROBLEM SOLVING using the INTELLIGENCE rules goes something like this. Every problem or situation requiring resolution through the processes of conscious thought is represented by a basic probability of solution or resolution This probability is expressed by a number folloed by a percentage sign which is underlined like this: 95%. The basic probabilities for various problems need not be determined until the first time a player or non-player character attempts to solve them, but a record should be kept be the game operator from that point on. It does not really matter what the level of difficulty of the problem is or at what level of probability the game operator sets it at as long as the same approximate standards are applied to subsequent problems. The game operator then sets a value in terms of additions to the die roll or in my mind the preferable reduction of the basic percentage chance of solving the problem. In this way the shear accumulation of CONCENTRATION FACTORS across the span of time will eventually bring the problem into the sphere of resolution through a simple percentile dice roll. An example will assist in the clarification of how this process works.

EXAMPLE: A player character anounces that s/he intends to invent the internal combustion engine. The game operator smile but says allright and sets the basic chance of inventing the internal combustion engine at 1,000% due to the extremely advanced nature of such an engine compared to the current stone age technology. The apparent paradox of a stone aged man knowing about and attempting to build an internal combustion engine is discussed in the INFORMATION SUB-SECTION. Every time the player character has a few extra CONCENTRATION FACTORS to spare s/he indicates to the game operator that they are being allocated to ABSTRACT THOUGHT for the purpose of proceeding with the invention of the engine. The game operator makes a determination of what value a CONCENTRATION FACTOR represents per unit of time, and s/he keeps a record of all CONCENTRATION FACTORS so allocated in some convenient notation such as CONCENTRATION FACTOR DAYS. Each CONCENTRATION FACTOR DAY would be the equivelent of 1 CONCENTRATION FACTOR allocated to the purpose for 1,000 units (1 day), 10 CONCENTRATION FACTORS allocated to the purpose for 100 units (2.5 hours), etc.

The player may take die rolls at specified intervals also determined by the game operator based on the nature of the problem, but in this case an early die roll would clearly be a waste of time as it is nearly impossible to roll 1,000 (a triple zero) on two percentile dice no matter how many die roll modifiers there are. The game operator conceeds to the player that an expenditure of 100 CONCENTRATION FACTOR DAYS should influence the probability significantly and s/he establishes a ratio of -1 from the chance of solving for each 100 CONCENTRATION FACTOR DAYS allocated by the player character.

This goes on for a long, long time without any die roll being worth the time required to mke it, until finally the ageing game rules catch up with the player and s/he is forced by decreasing INTELLIGENCE abilities to give up the effort. The game operator totals up all of the CONCENTRATION FACTORS allocated across the years and finds that the player has invested over 16,000 CONCENTRATION FACTOR DAYS in thought about internal combustion engines. Given the ratio of 100 CONCENTRATION FACTOR DAYS being equal to a reduction of -1 from the difficulty of solving the problem the game operator anounces that a total of 160 has been subtracted from the chances of succeeding, leaving a 840% chance of inventing the internal combustion engine. Unfortunately for the player no combination of die roll modifiers contained in these rules are sufficient to raise a roll of percentile dice to that level, but the player can die knowing that s/he made a suprising amount of progress towards the realization of his/her goal.

If the player character was able to leave a written record of his/her ideas, or if an apprentice had worked with the player and learned all or part of the knowledge s/he possessed concerning internal combustion engines then it is possible that the work could continue and that after several generations somebody might finally know enough to make a die roll worth while. Of course if the player did not share his/her knowledge with others it will die with him/her and anyone else who wants to do the same will have to start from scratch.

Though this example is a little (?) far fetched it serves to illustrate the manner in which these problem solving rules can be used. In the absence of a research game system the problem solving rules are used to fullfill the same function as well as to represent the simplier finding of solutions to more common problems such as how to open an unfamiliar type of door latch. The key to the use of this rule is the recording of the total number of CONCENTRATION FACTORS allocated by the player in proportion to the time allocated and the difficulty of the problem being resolved.

1.21.8 The effects of emotion are abstractly represented by reductions and possibly increases in the number of CONCENTRATION FACTORS AVAILABLE to the player or non-player for the purposes of allocation. This takes the form of a manditory reduction in the number of CONCENTRATION FACTORS AVAILABLE to the player as determined by the game operator. The table below serves as an indicator of the reductions associated with several emotional states.

DIE ROLL	FEAR	ANGER	CONFUSION	FRUSTRATION	JOY	DISTRACTION	GUILT	HATE	LOVE
1-10	-3	-5	-7	-2	-1	-4	-6	-10	-7
11-30	-3	-3	-5	-1	-	-3	-5	-7	-5
31-60	-2	-1	-3	-1	+1	-2	-4	-5	-2
61-80	-1	-1	-2	-	+1	-1	-3	-4	-1
81-90	-	-	-1	+1	+2	-	-2	-4	+1
91-95	+2	+1	-1	+1	+3	-	-1	-4	+1
96-99	+5	+2	-	+2	+5	+1	-	-2	+3
100+	+5	+3	+1	+3	+5	+2	+1	-1	+5

The table above is just a suggestion, but it will work fine if the game operator does not choose to create his or her own emotion table. The die rollindicated should be rolled only after the game operator has determined that aplayer or non-player is experiencing that particular emotion or a combination od emotions. It is usually not in the interests of the player to admit that his/her character is experiencing a particular emotion, so the game operator must keep a careful watch for situation were the emotion rules are indicated.

Emotion can also cause temporary increases or decreases in the CONSTITUTION or INTELLIGENCE VALUES and LEVELS, and though no specific table of such effects is included in the LEGACY game, the game operator may wish to construct one. I prefer to evaluate each situation and compare the current circumstance with the actions of the player and his/her character in similiar situations in the past whenever I am contemplating effects on INTELLIGENCE or CONSTITUTION related to a characters emotions. In doing this I find that a specific table gets in the way more often than not, but I leave this in the hands of the individual game operators.

1.21.9 REFLEX describes the automatic or inherent responses of the body to certain environmental influences and effects which the player or non-player has no ability to prevent or over-ride. I simulate them by simply keeping a list for each player character and important non-player character on their CHARACTER RECORD SHEET of any reflexes they have which I feel may be significant to the game. The only way a reflex may be tampered with is through Learning and Integration. I do admit that many reflexes can be surgically or physically altered or removed, but game operators will have to design their own rules for this.

1.21.10 The muse area of the CONCENTRATION FACTOR allocation wheel represents the neutral or idle portion of the players or non-players brain. Any CONCENTRATION FACTORS allocated to muse are assumed to be engaged in idle daydreaminf and other pleasent though non-productive functions. At least half of a players or non-players CONCENTRATION FACTORS must be placed in muse during a RECOVERY PERIOD. If for any reason fewer than half are present in muse the RECOVERY PERIOD is considered interrupted. When CONCENTRATION FACTORS are not allocated elsewhere they MUST be allocated to muse.

1.21.11 The skills and techniques area of the CONCENTRATION FACTOR allocation wheel represents allocations of CONCENTRATION FACTORS associated with ACTIVITY STATES or the use of ENABLERS. Any CONCENTRATION FACTORS allocated to the skills and techniques section must be identified as to which ENABLERS or ACTIVITY STATES they are associated with. At the conclusion of any ACTIVITY STATE or use of an ENABLER the relevant CONCENTRATION FACTORS must either be associated with a new ACTIVITY STATE or ENABLER or else assigned elsewhere.

1.21.12 The INTELLIGENCE SUB-VALUES are also represented on the CONCENTRATION FACTOR ALLOCATION wheel. The function of the allocation wheel is to graphically represent the allocations of CONCENTRATION FACTORS made by the characters and to insure that more CONCENTRATION FACTORS are not allocated than are available. Pennies, counters, or any other convenient set of similiar objects may be used to represent the players CONCENTRATION FACTORS and to reord their allocations on the wheel. Below is a description of each of the INTELLIGENCE SUB-VALUES and their effect upon the rest of the LEGACY game.

ABSTRACT THOUGHT represents a characters ability to conduct the kind of reasoning described in the example on page 57. The game operator should take into acount a players Abstract Thought SUB-VALUE when evaluating his/her ability to solve a problem of an abstract or long term nature. No specific table is included of the exact impact of the Abstract Thought SUB-VALUE, but the average value for Humans and Keya-Teu alike is 5.

PRACTICAL THOUGHT represents the immediate problem solving capabilities of an individual often referred to as "common sense". Allocations to the Practical Thought section of the wheel indicates that the character is considering and evaluating information of immediate concern and relevance to his/her situation or survival. It is placed next to the skills and techniques section due to the similarity between these two areas of CONCENTRATION FACTOR allocation. Though no particular table is provided showing the effects of Practical thought on the solving of immediate type problems the game operator should take it into acount when evaluating a characters ability to solve this type of problem.

LEARNING AND INTEGRATION represents the ability of the character to accumulate new information, skills, and techniques. It is used as an input to the practice and training ACTIVITY STATE and the ENABLERS. It effects are described in the ENABLERS SUB-SECTION.

MEMORY represents the ability of the character to recall situations or events which have occured in the game. A characters Memory SUB-VALUE has a profound impact on the way that character relates to the information game system. Space is provided on the back of the ADVANCED CHARACTER RECORD SHEET to record memories as discribed in the information rules. Basically no player may be created in the game as knowing a piece of information unless s/he has a memory SUB-VALUE of at least 1, and each memory level above that increases the total amount of information an individual may remember.

The 50 numbered spaces under Memory on the back of the ADVANCED CHARACTER RECORD SHEET are used to record the titles of cards which contain written descriptions of events or other data. The Memory SUB-VALUE of the character determines how many words this description may contain, and the player is credited in the game as knowing only what is written on that card.

Memory SUB-VALUE	NUMBER OF WORDS MEMORY CARD MAY VONTAIN
0	0
1	5 words
2	15 words
3	25 words
4	40 words
5	50 words
6	60 words
7	70 words
8	80 words
9	90 words
10	an unlimited number of words

The Memory cards are numbered and titled corresponding to their listings on the back of the RECORD SHEET. Small or everyday types of memories need not be listed and recorded using Memory cards, but any complex situation or event containing a substantial amount of information or detail which the character may later want to refer to should be recorded in this manner. Once a memory has been recorded on a memory card it is the resposibility of the game operator to refuse to acknowledge any information which the player claims to know about the event which is not recorded on the card. Of course the character may attempt to recall additional details using either an INTUITIVE LEAP or a LEAP OF LOGIC.

1.21.13 The abilities of an individual to percieve his/her environment are divided into five basic categories of awarness. They are discribed below in the order in which they are commonly relied upon by Keya-Teu and Humans.

SIGHT involves the passive reception of energy reflected from components of the environment and may take many different forms such as visible light, infrared, black and white, compound, etc. The ability of an individual to percieve using vision is almost always limited to less than a kilometer, but objects on a featureless background such as at sea or on a field of snow may be more visible. Also massive but distant objects such as mountains, large clouds of smoke, etc. may be visible from great distances. Otherwise the absolute limit of vision is determined by the horizon.

TOUCH reflects the perceptions gathered through nerve endings caused by direct contact between a character and an object or phenomenon of the ENVIRONMENT. As long as an individual is in physical contact with an object s/he can tell the objects approximate temperature, texture, and hardness or resilience.

HEARING represents an individuals ability to passively percieve patterns of sound waves propagated through the environment by atmosphere, water, or even rock. The sensitivity of an individuals hearing determines how much and how far away s/he can hear but the maximum for Humans is about a mile even with the assistence of wind and other factors. The loudness of the sound is a critical factor in determining the ability of an individual to hear over distance.

TASTE and SMELL reflect a limited capacity of the nervous system to differentiate between molecules of different types. Without the aid of the nose Humans are able to differentiate the tastes of sweet, salty, and sour. The nose increases the sensitivity and capabilities of the perception greatly. Wind is the deciding factor in determining how far an individual can taste or smell over distance.

OTHER represents a variety of other limited perceptions such as balance, danger awarness, and the rare or nonexistent sensations and perceptions included in the CHARISMA SUB-SECTION beggining on the following page. These perception abilities usually play a relatively minor role in the actions and activities of the player or non-player character, but there existence should be considered by both the players and the game operator.

1.21.14 NOT SIMULATED ASPECTS OF INTELLIGENCE

Because the INTELLIGENCE abilities are so little understood in humans today it is very difficult to simulate them in a role assumption game. There is little information and few sources which do not contain contradictions and half truths. At the same time INTELLIGENCE is easy to simulate because there are fewer experts to say that the rules are wrong than is the case with CONSTITUTION.

These INTELLIGENCE rules require some time and attention from the players and the game operator in order to use, but I have found in playtests that together they do an admirable job of filling in the gaps in the game which make INTELLIGENCE rules and absolutely essential part of the LEGACY game system. I urge the game operator and players to try the rules as the stand before making a lot of their own changes, but I admit that these INTELLIGENCE rules are uniquely suited for modification and expansion.

The entire research/scientific process method of inquery has been omitted from these rules, as well as any discussion of the aspects which determine the personality of an individual. Space did not permit the inclusion of these rules even though some of them did exist and were tested in the ERS campaign. I urge the game operator to design his/her own rules of this nature if s/he feels the need for them, but remember to incorporate them into the allocation of CONCENTRATION FACTORS concept which is the building block on which a multitude of INTELLIGENCE rules may be constructed.

Contrary to the claims of other portions of these rules the effects of insanity are not clearly spelled out. My apologies, I simply ran out of room. For a temporary solution I reccomend that the game operator construct a random table loaded with emotional effects such as those on page 58. This does an admirable job of making a non-player character look insane, though your player characters will rebel at the slightest hint of it happening to them.

CHARISMA

1.31 THE CHARISMA VALUE

The nature of the CHARISMA VALUE is as different from the INTELLIGENCE and CONSTITUTION VALUES as the nature of the other aspects of CHARISMA. Rather than a straight numerical representation of the approximate LEVEL and SUB-VALUES possessed by an individual it is a sort of code indicating the importance of the individuals CHARISMA SUB-VALUES. No actions or activities can be resolved on the basis of the CHARISMA VALUE alone, the SUB-VALUES must be consulted.

1.31.1 The first digit of the CHARISMA VALUE indicates the relative significance or importance of the individuals CHARISMA. The higher the first digit, the more important the CHARISMA possessed by the individual. The relative significance of the different values for the first digit of the CHARISMA VALUE are indicated on the table below.

CHARISMA VALUE	EXPLAINATION
0	Indicates a complete lack of significant CHARISMA
1	Indicates a nearly complete lack of significant CHARISMA. Common among non-player characters.
2	Indicates a lower than but nearly significant CHARISMA
3	Indicates enough CHARISMA to effect the course of play
4	Indicates more than enough CHARISMA to effect the course of play. Frequent among player characters.
5	Indicates sufficient CHARISMA to make the individual an important and unusual force in the game.
6	Indicates sufficient CHARISMA to make the individual a major force in the game.
7	Indicates a CHARISMA SUB-VALUE higher than 10 or two or more SUB-VALUES higher than 6.
8	Indicates a CHARISMA SUB-VALUE higher than 15 or two or more SUB-VALUES higher than 10.
9	Indicates a CHARISMA SUB-VALUE of a type not listed in these rules higher than 10.

The higher the number the higher the amount or the more significant the distribution of CHARISMA in the individual specified.

1.31.2 The second digit of the CHARISMA VALUE indicates the nature or identity of the individuals CHARISMA SUB-VALUE(s) high enough to trigger effects or abilities in the game. The table below indicates the meaning attached to the various numbers occupying the second position.

CHARISMA VALUE	EXPLAINATION
0	Indicates no significant CHARISMA SUB-VALUES
1	Identifies SALIENCE as the significant SUB-VALUE
2	Identifies LEADERSHIP as the significant SUB-VALUE
3	Identifies EMPATHY as the significant SUB-VALUE
4	Identifies FLORA ABILITY as the significant SUB-VALUE
5	Identifies FAUNA ABILITY as the significant SUB-VALUE
6	Indicates a combination of two significant SUB-VALUES
7	INDICATES A COMBINATION OF THREE SIGNIFICANT SUB-VALUES.
8	Indicates a combination of four significant SUB-VALUES.

9 Indicates the existence of a CHARISMA SUB-VALUE not listed or described in these rules.

The first and second digits fit together to form a number resembeling the VALUES for either CONSTITUTION or INTELLIGENCE.

The CHARISMA VALUE is determined by examination of the CHARISMA SUB-VALUES rather than the pther way around as is the case with INTELLIGENCE and CONSTITUTION. It serves as a flag or indicator of what is important in the area of CHARISMA but has no direct meaning of it's own. The CHARISMA VALUE does not input into any other game system or rule other than to serve notice to the game operator and the players to be on the lookout for certain high and powerful combinations and examples of CHARISMA ability.

1.31.3 The SALIENCE CHARISMA SUB-VALUE indicates the immediate impact or importance of the individual to that portion of the environment which s/he inhabits. SALIENCE serves as a quick reference to the likely impact and effects of the individual, and an organism with a high SALIENCE is considered as being in a pivot or decision point with regard to the other organisms in directly adjoining ecological niches.

The specific effects of SALIENCE may take the form of a die roll modifier or and increased tendency for events and adventures to occur to the SALIENT individual. Primarily it indicates to the game operator that around this individual most of the immediate action of that portion of the environment will take place, and it will increase the likelyhood of ENCOUNTERS, RANDOM EVENTS, and a variety of other environmental effects which under normal circumstances may not normally occur. In this sense SALIENCE is a mixed blessing. It is gained initially through the CHARACTER DETERMINATION rules contained in the GAME OPERATOR'S SECTION, and may only be removed or lost by the death of the character. It does not increase or decrease, though the removal of the SALIENT individual from the environmental niche which it effects will have the result of appearing to destroy the SALIENCE. As soon as the individual returns to the ecological or geographic area associated with the SALIENCE the focusing of event effects will return full strength.

An individuals SALIENCE is described by a SALIENCE STATEMENT written by the game operator at the time the player first rolls up the character, and it may not be changed at any time subsequent to that. The SALIENCE STATEMENT is kept secret from the player, but the effects of the SALIENCE should eventually make it obvious to the player where and what it is which s/he seems to attract or effect to such an extent.

1.31.4 LEADERSHIP represents the players ability to effect and convince other characters to participate in or to initiate actions or activities which are in accordance with the wishes of the LEADER. Though no specific rule exists covering the area of trying to convince somebody to do some specific something the interaction SUB-SECTION contains a communication rule which serves virtually the same purpose. An individual adds 10 to the die roll for each level or point of LEADERSHIP s/he possesses when using this rule, and subtracts 5 from the die roll when anyone is using this rule against him/her.

1.31.5 EMPATHY represents the ability of an individual to put him/herself into another persons shoes and feel the same kinds of emotions and sensations that the person does. It is extremely useful in communicating with other sentients and this is reflected in an addition of +5 to the communication rule die roll described above and listed in the interactions SUB-SECTION. In the higher levels this ability may include such aspects as EMPATHIC HEALING, the ability to absorb anothers wounds or defects into the body and mind of the empath, but this is left up to the individual game operators.

1.31.6 FLORA ABILITY reflects a special feel and understanding for plants possessed by the individual. This is reflected in increases in die rolls associated with identifying plants and substantial increases to the CULTIVATION ACTIVITY STATE described in the FLORA AND FAUNA SUB-SECTION of the ENVIRONMENT rules. The specific additions should be related to the level achieved by the individual in the FLORA ABILITY SUB-VALUE, but once more the specific numbers are left up to the individual game operator.

1.31.7 FAUNA ABILITY reflects the same type of skill and knowledge as FLORA ABILITY except that is deals with animals and the die roll additions are related to the herding and domestication of animals.

1.31.8 CHARISMA is the category of abilities in which all of the various non INTELLIGENCE and non CONSTITUTION types are placed such as psychic ability. Game operators should feel free to include their own abilities within this SUB-SECTION.

ENABLERS

1.41 THE ARTIFACT ENABLER

ARTIFACTS are represented in the LEGACY game by ENABLER cards containing a picture and a set of information pertaining to the characteristics and uses of the artifact. The types of information contained on the ENABLER card for ARTIFACTS are listed and described below.

1.41.1 The name, materials, and a rough description of the artifact are listed on the first two lines of the ENABLER card. In the upper right hand corner contains the word ARTIFACT identifying that ENABLER as an ARTIFACT.

1.41.2 The use or purpose for which the ARTIFACT was fashioned is listed on the next two lines under the heading APPLICATION.

1.41.3 The condition of the ARTIFACT is written by the game operator on the blank which forms the fifth line of the ENABLER card. The possible conditions of an ARTIFACT are NEW, USEABLE, UNUSEABLE, PARTIALLY USEABLE, RELIC. The conditions are all self explainitory except for RELIC. The condition of RELIC refers to the fact that the ARTIFACT was found or discovered and is evidence of some past manufacture or fabrication of ARTIFACTS. Some RELICS are useable, while many are only in good enough condition to tell what the once were. The age of a RELIC may be determined by examining it's half life and ORIGIN.

1.41.4 Any requirements to use the ARTIFACT are listed under the heading REQUIREMENTS. These are conditions which must be met before the ARTIFACT can be used in any way.

1.41.5 The weight of the ARTIFACT is listed under the heading WEIGHT. This is used in determining ACTIVITY POINT costs to carry and the like.

1.41.6 The DECAY RATE of the ARTIFACT is represented by the capital letters DR followed by a number ranging from 1 to 20. This represents how quickly the normal actions of the environment act on the ARTIFACT to reduce or destroy it's usefulness and identity. A table indicating the various DECAY RATES is offered below.

TIME UNITS	1	2	3	4	5	6	7	8	9	10	11	12	13	14
.01	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-	-	-	-
.1	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-	-	-
1	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-	-
10	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-
100	X	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-
1000 (1 day)	X	X	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-
10000 (10 days)	X	X	X	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%
100000 (100 days)	X	X	X	X	X	X	X	50%	40%	30%	20%	10%	5%	3%
1000000 (2.74 years)	X	X	X	X	X	X	X	X	50%	40%	30%	20%	10%	5%
10000000 (27.4 years)	X	X	X	X	X	X	X	X	X	50%	40%	30%	20%	10%
100000000 (274 years)	X	X	X	X	X	X	X	X	X	X	50%	40%	30%	20%
1000000000 (2,740 years)	X	X	X	X	X	X	X	X	X	X	X	50%	40%	30%
10000000000 (27,400 years)	X	X	X	X	X	X	X	X	X	X	X	X	50%	40%
100000000000	X	X	X	X	X	X	X	X	X	X	X	X	X	50%

The dashes represent the lack of any deterioration during the passage of that amount of time. The numbers followed by percentage signs represent the percent of damage or weathering caused by the effects of the environment. The percentage which will incapacitate the ARTIFACT is included in parenthesis immediately after the statement of the ARTIFACT'S DECAY RATE. The X represents the total disolution of the ARTIFACT and the point at which it ceases to be even a RELIC.

The HALF LIFE of the ARTIFACT is also listed beside the DECAY RATE and the percentage at which the ARTIFACT is no longer able to perfrom it's function. The HALF LIFE is simply a statement of the amount of time which will pass before the ARTIFACT is one half deteriorated. This is simply a restatement of information implied in the DECAY RATE, but it is useful to have it stated on the ARTIFACT for easy reference.

1.41.7 Under the heading MAINTAINENCE are listed the cost in basic activity and ability die rolls and time for performing one factor of maintainence on the ARTIFACT. Maintainence is desireable because it increases the life span of the ARTIFACT beyond it's normal expectency. The number of maintainence factors which may be performed on an ARTIFACT and the effects of each maintainence factor on the life span of the ARTIFACT are stated in the following manner. The number of maintainence factors is represented by a series of small ovals or circles which are filled in each time a maintainence factor is performed. The amount of time by which the ARTIFACTS life expectency is extended is stated in units directly below the maintainence circles. The apparent age of the ARTIFACT is reduced by this amount for each of the maintainence circles which is filled in by the actions of the player.

1.41.8 The date of origin or of fabrication for the ARTIFACT is stated under the heading ORIGIN. This space is left blank until the ARTIFACT enters the course of play. At that time the game operator determines the exact age and time of origin for the ARTIFACT using whatever method s/he feels is best suited.

1.41.9 The final piece of information contained on the ARTIFACT ENABLER is information relating to the FABRICATION costs to create it. This is expressed in terms of FABRICATION FACTORS as described in the ACTIVITY STATE rules and a listing of any obscure or nonapparent resources required in the fabrication process. NOTE: not all of the materials required to fabricate the ARTIFACT will be stated or listed in all circumstances. The limitations of space mean that many times only the non-obvious or hidden resources will be listed. The remaining resources must be determined using common sense.

1.42 THE TECHNIQUE ENABLER

TECHNIQUES are nonimprovable skills and are represented in the LEGACY game by ENABLER cards which indicate the nature and applications of the technique. The types of information located on the TECHNIQUE ENABLER cards are listed below.

1.42.1 The name and a rough description of the TECHNIQUE are included in the first two lines of the ENABLER card, and in the upper right hand corner the word TECHNIQUE appears identifying the ENABLER as a TECHNIQUE.

1.42.2 The use or purpose of the TECHNIQUE is listed on the next two lines under the heading APPLICATION.

1.42.3 Any requirements which must be met in order for the TECHNIQUE to be used are listed on the next lines under the heading REQUIREMENTS.

1.42.4 Some of the TECHNIQUES may not be used if the individual is possessing certain types of STATUS such as FATIGUE LEVELS, WOUNDS, or Diseases. Any of these types of conditions are listed under the heading RESTRICTIONS.

1.42.5 The effects of the TECHNIQUE are expresses both in terms of the basic CONSTITUTION and INTELLIGENCE rules and the advanced CONSTITUTION and INTELLIGENCE rules. This appears under the headings basic activity and basic ability die roll modifiers, and a formula or formula modifier which applies to the individuals SUB-VALUES or a SKILL ENABLER.

1.42.6 The final type of information contained on the TECHNIQUE ENABLER card is a brief description or comment concerning how the TECHNIQUE may be aquired or obtained by the players. This is listed under the heading AQUISITION.

1.43 THE SKILL ENABLER

The third type of ENABLER represented by the LEGACY rules is the SKILL ENABLER which represents an improvable skill or technique. The types of information listed on the SKILL ENABLER card are listed and explained below and on the following page.

1.43.1 The name and rough description of the SKILL are included in the first two lines of the ENABLER card, and in the upper right hand corner the word SKILL appears identifying the ENABLER as a SKILL.

1.43.2 The use or purpose of the SKILL is listed on the next two lines under the heading APPLICATION.

1.43.3 Any requirements or conditions which must be met before the SKILL may be used or applied are listed on the next lines under the heading REQUIREMENTS.

1.43.4 Some of the SKILLS may not be used if the individual possesses certain types of STATUS such as FATIGUE LEVELS, WOUNDS, or Diseases. Any of these types of conditions along with necessary expenditures of ACTIVITY POINTS and allocations of CONCENTRATION FACTORS are listed under the heading RESTRICTIONS.

1.43.5 The EFFECTS of the SKILL are expressed both in basic and advanced terms. The basic incorporates the activity and ability die rolls while the advanced usually involves the relationship between the individuals SUB-VALUES and a particular variable related to the nature of the SKILL itself.

1.43.6 The final type of information expressed on the SKILL ENABLER card is the rules and formula pertaining to the aquisition and improvement of the SKILL simulated by the ENABLER. These rules or formula may vary widely depending on the nature and characteristics of the specific SKILL, but they all follow generally understandable principles of learning and integration.

EXAMPLE: The SKILL of sailing is represented by the ENABLER card on the right side of the page. Using this SKILL ENABLER and a small sail boat a Human character will try to travel from point A to point B. They are seperated by approximately 1,000 kilometers of ocean, and as explained on the SAILBOAT ARTIFACT ENABLER not shown the absolute top speed of this particular sailboat is a kilometer per unit or roughly 40 Kms. per hour. With lighter winds the sailboat will travel correspondingly slower.

Setting out from port with an initial SKILL LEVEL of 4 the Human incounters winds with an intensity of 4 blowing in a favorable direction. S/he sets sail and proceeds. After ½ day has passed s/he has expended only 5 ACTIVITY POINTSand has gained 5% of the experience with sailing needed to increase his/her SKILL LEVEL by one.

Towards evening the wind intensity increases sharply, and in the course of attempting to maintain course and prevent the small sailboat from capsizing in the nearly 7 intensity winds the Human gains 2 additional SKILL LEVELS, bringing his/her total up to 6.

The actual struggle to prevent the boat from being overcome by wind and waves was simulated as indicated on the ENABLER card to the immediate right. Using the basic game system the initial activity requirement of 50 is increased by 70 for the wind intensity, meaning that the Human must attain a die roll of at least 120. S/he is adding 40 for the SKILL LEVEL, and perhaps another 50 for his/her CONSTITUTION LEVEL making a total amount of die roll modifiers equal to +90. A die roll of 37 confirms that the Human is able to keep the boat from sinking, though not by much.

The advanced formula indicates that the player has approximately 30% chance of keeping the boat under control. A die roll of 31 indicates that full control was very nearly retained, and the game operator determines that the loss of control was not serious enough to cause the Human any difficulties. Later s/he reaches point B with a new SKILL LEVEL of 7, one being added for having spent more than 10,000 units (10 days) sailing the boat.

SMALL BOAT SAILING SKILL

Operation, navigation, and general maintainence of small sailboats.

REQUIREMENTS: Poor CONSTITUTION LEVEL or higher, Knot tying SKILL, 1 A.P. per 100 units expended and 5+ C.F. allocated.

RESTRICTIONS: Wind intensity 9+, FATIGUE 3+, MAJOR WOUND

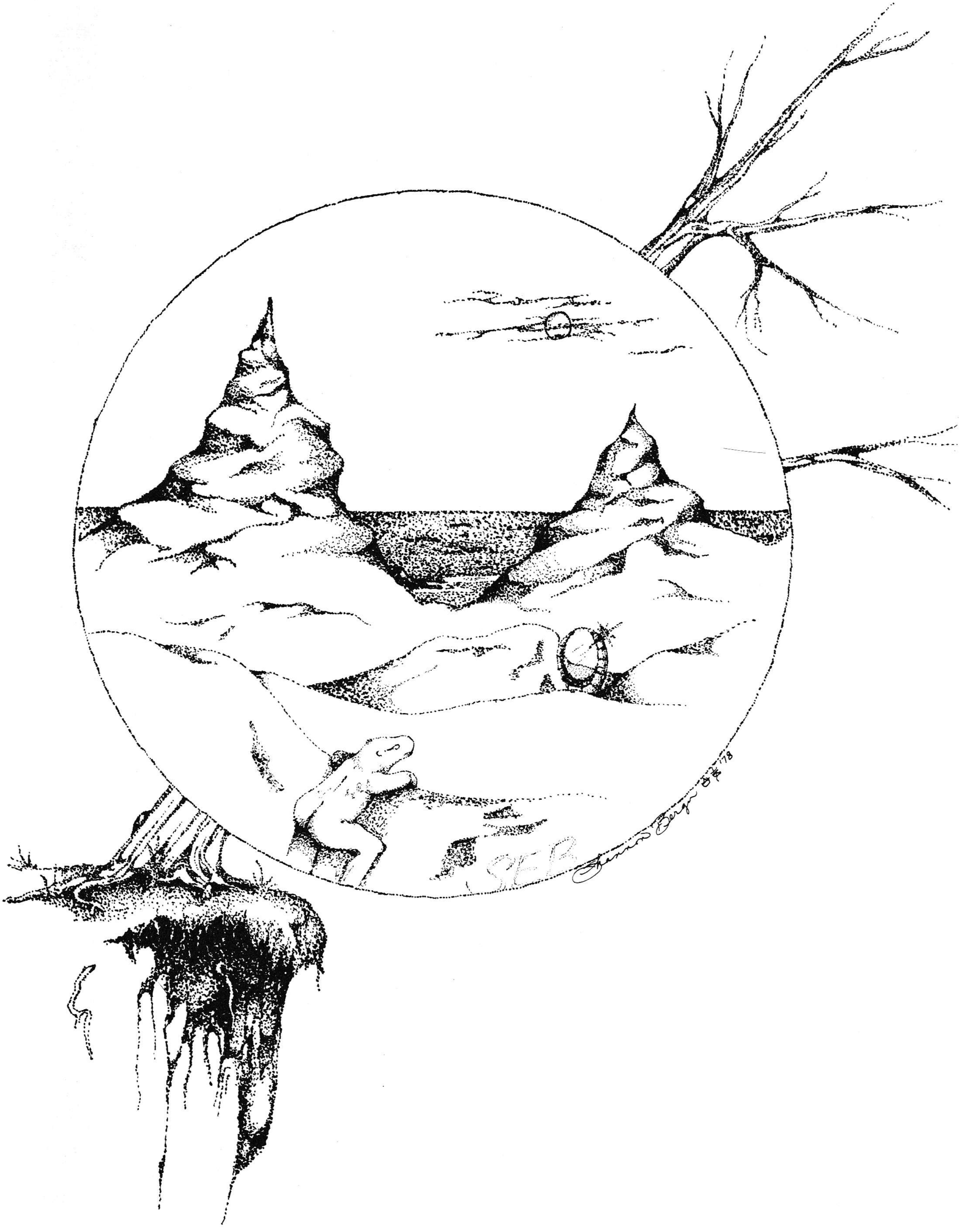
BASIC EFFECTS: Light work ACTIVITY STATE, activity die roll = 50, ability - 65. Activity cost +10 for each level of wind intensity, die roll modifier +10 for each SKILL LEVEL.

ADVANCED EFFECTS: SKILL LEVEL x 50 /wind intensity = % chance of keeping boat under full control.

AQUISITION: Exposure to sailboats sailing, and sailors.

IMPROVEMENT: 10,000 units experience = 1 SKILL LEVEL, first exposure to wind intensities higher than 6 = 2 SKILL LEVELS.

1.43.7 The SKILL LEVELS of player and non-player characters may be kept on their CHARACTER RECORD SHEETS or on a seperate sheet of paper at the discretion of the players and the game operator. If additional ENABLERS, wether SKILL, TECHNIQUE, or ARTIFACT, are needed by the game operator or they players the may design them and include them in the game with little or no difficulty. Potentially players will have large numbers of ENABLERS representing all of their worldly possessions and abilities (learned), to which they may refer in order to assess the options open to them at any particular time or decision point which occurs in the game. I wish I had this capability in real life.


SEB
Shannon Berger '78

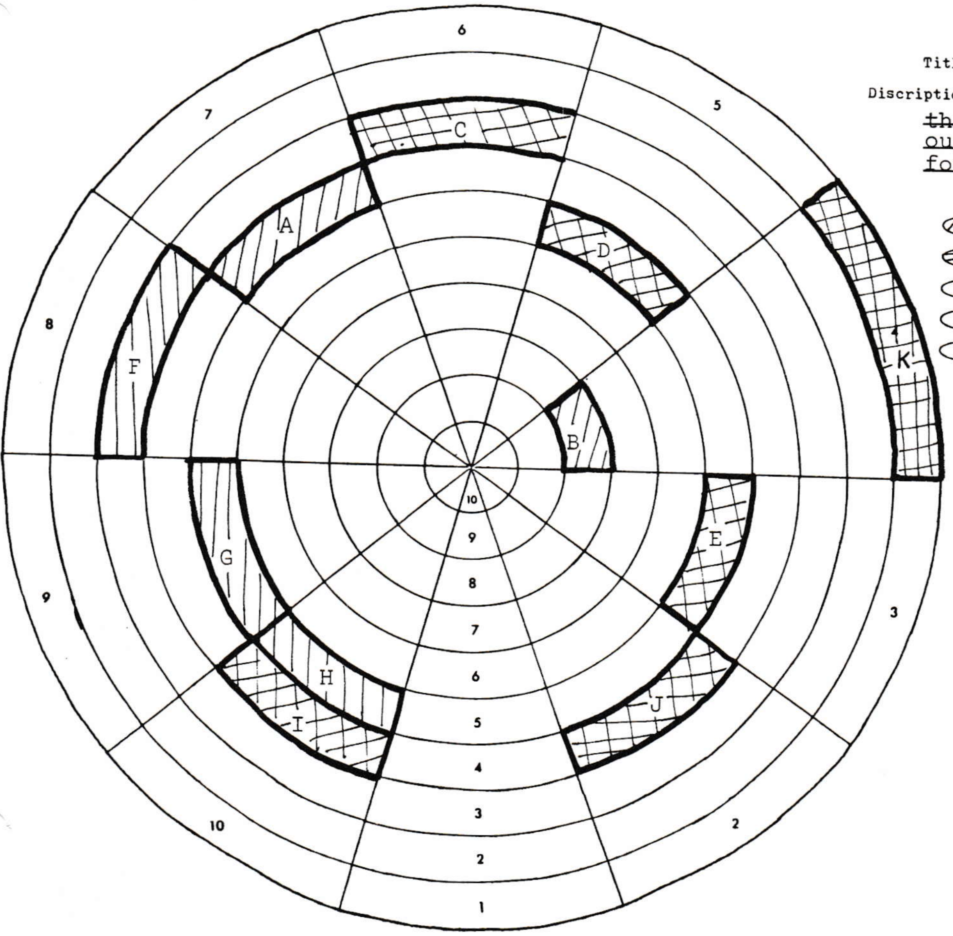
1.51 CHARACTERS AS SYSTEMS AND SYSTEM ELEMENTS

The inter-relationships between the elements of a system may be mapped and described using a variety of methods which are of frequent usefulness when a large group of individuals or other elements must be mapped and their interactions with each other catalouged. The primary method within the LEGACY game for doing this is the SYSTEMS DISPERSION CHART.

1.51.1 In order for the interactions of a system to be graphed the system must be defined and the elements listed. In the case of the LEGACY game the most frequently plotted system is the tribal or social group, and the elements to be listed usually consist of the members of that group. The members should be listed and a decision made as to the inherent attributes of the individuals which are easily represented but also give an increased feeling of individuality to each of the system elements. TYPICAL attributes for a tribal or social group of Humans would be SEX, AGE, and NAME.

1.51.2 Once the elements of the system have been listed the game operator or other individual mapping the interaction of elements should decide wether the system and it's elements is to be generated randomly or wether it must meet certain characteristics or requirements which require that the game operator or some other individual establish and hand craft the inter-relationships and interactions of the elements of that system. Once this has been decided the elements are listed on the SYSTEM DISPERSION CHART below along the right hand side in the spaces provided. If the determination is to be random percentile dice are rolled, one color indicating which ring the system element is located in and the other color representing the section in which the system element is located. Together these two dice specify a single space within the confines of the SYSTEM DISPERSION CHART which becomes that elements starting place. If the elements are to be placed the game operator or other individual places each element on a space within the confines of the SYSTEM DISPERSION CHART.

The elements should be identified and color or letter coded to reflect the listing of system elements contained along the right hand side.



SYSTEM DISPERSION CHART

Title: The Hill Tribe

Discription: This small band of Humans is the remainder of a once prosperous band of cave dwellers that were forced to migrate due to flooding.

COLOR CODE - EXPLAINATION

▨	= Male	○	= 26-35 Yrs.
▦	= Female	○	= 36-40 Yrs.
○	= Under 10	○	= 41-50 Yrs.
○	= 11-15 years	○	= 50+ years
○	= 16-25 years	○	=

Alpha-Numeric CODE - EXPLAINATION

A:	Gort	S:	
B:	Samart	T:	
C:	Mulkti	U:	
D:	Beset	V:	
E:	Mona	W:	
F:	Scarl	X:	
G:	Trask	Y:	
H:	Bishop	Z:	
I:	Miter	1:	
J:	Clarris	2:	
K:	Sharl	3:	
L:		4:	
M:		5:	
N:		6:	
O:		7:	
P:		8:	
Q:		9:	
R:		10:	

1.51.3 Once the system elements have been located on the SYSTEM DISPERSION CHART the game operator or other individual should examine their relative positions and proximity ot each other.

Elements close to or adjacent ot each other tend to have frequent dealings with each other in the course of normal systemic interactions.

Elements far away from each other tend to have fewer if any social or whatever type of interactions with each other.

Elements on the opposite sides of the center tend to have conflicting ideologies or methods.

Elements on the same side of the center tend to have similiar or identical ideologies or methods.

Using these and a few other common sense and reasonable interpretations of the positioning of the system elements within the SYSTEM DISPERSION CHART the game operator or other individual can easily find a wealth of possible relationships and interactions.

EXAMPLE: The SYSTEMS DISPERSION CHART on page 67 contains a plot of the relationships between members of the Hill Tribe. Simply from studying the Description information and the positioning of the individual members of the tribe as shown on the plot I would make the following interpretations;

1. That Gort has a close relationship with both the male Scarl and the female Mulkti. Given the nearness but not togetherness or adjacence of the three elements I would guess that they are probably brothers and sister of the same family. No evidence is indicated of the parents, and I would further suppose that they may have been killed in the flooding mentioned in the Description.
2. The Trask, Bishop, Miter group bears a much closer resemblence to a family, and I would say that probably represent either husband, wife, and son if these terms apply to this group of tribesman, or else the group represents two brothers and one of their daughters or else a husband, wife, and husbands brother. Note how much the additional information concerning age would have helped in determining the relationship between the individuals in this circumstance.

   Additionally these three seem to have relatively frequent and presumably friendly relations and interactions with the the Gort, Mulkti, Scarl group.
3. Samart located close to the center and not strongly allied or entangeled with any one or several other individuals would make a good choice for leader of the tribe if his age permits, but the strong triads mentioned in 1 and 2 would also make potential leaders based on their positions of relative strength. The tribe under Samart would probably be a more peaceful and less polarized place than if either of the triads were in charge.
4. Sharl, represented by the K element way out on the edge is probably the primary antagonist of both triads and may well be an unsettling influence on the tribe as a whole.

In this way the game operator can got through a SYSTEM DISPERSION CHART of a set of system elements and evaluate the possible interactions and relationships between them.

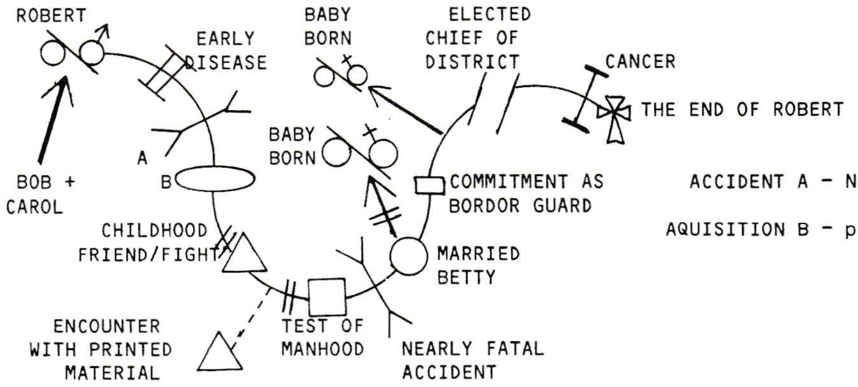
1.51.4 Once the game operator or other individual has established some of the interactions and relationships existing between the elements in a social system these interactions and relationships must be recorded in a quick and convenient manner which does not take up to much space but allows a great deal of information to be displayed and easily understood. A modification of the anthropological kinship diagram with special symbology is used for this purpose.

The symbols and their meanings are listed below.

SYMBOL	EXPLAINATION	SYMBOL	EXPLAINATION
♂	Male organism	—△—	Temporary relationship
♀	Female organism	—○—	Permanent relationship
☿	Hermaphroditic organism	—□—	Cultural or social relationship. May also be business.
⚭	Origin or birth of organism		
├─┤	Disease	⟶	PARANTAGE, from parent to the child or children.
>—<	Accident	—/ /—	Special relationship
⬭	Aquisition	—▯—	Periodic, cyclical relationship.
✠	Death	═	INTERACTION
- - △ - -	Abstract relationship		

These symbols are connected to each other in combination with the names of individuals who are associated with them and together they form what is called a personal events plot. A special space is provided on the back of both the basic and advanced CHARACTER RECORD SHEETS for this PERSONAL EVENTS PLOT information.

EXAMPLE: The Human male Robert ahs led an interesting life for the last few years which is chroniceled in the following PERSONAL EVENTS PLOT.



ACCIDENT A - Near fatal landslide

AQUISITION B - purchase of metal sword

As can be quickly seen from the PERSONAL EVENTS PLOT above ROBERT had a full though perhaps short life in which he accomplished quite a few things. A little bit of information like this can go an amazingly long way towards filling out the personality of a non-player character and may also be used to record the actions and activities of player characters on a crude level.

1.51.4 The combination of SYSTEM DISPERSION CHART and INTERACTION SYMBOLS may be used for a wide variety of purposes. Systems other than social ones may be graphed, and the PERSONAL EVENTS PLOT may be converted to other types of events plots featuring a particular period of time, a particular set of individuals, or other types of interactions which may need to be expressed or recorded.

1.52 THE POOLING OF EFFORTS AND ABILITIES

Whenever individuals work together the least likely result is that they will accomplish exactly as much work as they would have if each individual had done his/her share of the work seperately. When people work well together the inspire and assist each other and are subsequently more productive than they would be individually. When people are new to or are not good at working together they are likely to accomplish less work than they would have if they had worked seperately.

This fact is reflected in a percentage by which the combined abilities, effort ACTIVITY POINTS, or whatever is multiplied by to determine how much work was actually accomplished. Percentages higher than 100 are synergistic or greater than the sum of the parts while percentages less than 100 are representing a failure or difficulty in the manner in which the individuals interact which is limiting or reducing the amount of work that is actually being done. This percentage is called the ACTIVITY POOLING MULTIPLIER.

1.52.1 The ACTIVITY POOLING MULTIPLIER is determined by rolling percentile dice each time a group of workers come together for the purpose of working together for the first ime. The table below is consulted, and the indicated value becomes the ACTIVITY POOLING MULTIPLIER for that particular group of individuals.

	NUMBER OF INDIVIDUALS IN THE GROUP									
DIE ROLL	2	3	4	5	6-9	10-15	16-25	26-50	51-100	101+
1-10	90%	80%	70%	60%	50%	40%	30%	20%	10%	1%
11-30	95%	90%	80%	75%	70%	60%	50%	40%	30%	20%
31-50	99%	95%	90%	80%	75%	70%	60%	50%	40%	30%
51-70	101%	99%	95%	90%	80%	80%	75%	75%	50%	50%
71-90	105%	101%	99%	99%	90%	90%	90%	90%	75%	75%
91-100	110%	105%	101%	101%	99%	99%	99%	99%	90%	90%
101+	150%	125%	110%	105%	101%	101%	101%	101%	99%	99%

If a subset of the members of the newly formed work group have worked together before they will change the result of the die roll one column in the direction which represents their ACTIVITY POOLING MULTIPLIER. If more than one subset of the newly formed group have worked together before then all of their former ACTIVITY POOLING MULTIPLIERS will influence the die roll by one category each in the direction towards which their own multiplier is. If the ACTIVITY POOLING MULTIPLIER is identicle to the one assocaited with one or more of the subsets (sub-groups) then those subsets do not influence the die roll at all.

1.52.2 Whenever more than one person works are interacts there must be communication between them. This communication or sharing of information and ideas and trading of influence is represented by an abstract rule substitution for the LANGUAGE AND COMMUNICATION SECTION of the rules which does not exist in this booklet. This substitute rule is called INFLUENCE, and it goes something like this;

Players and non-player characters prioritize their intended action and activities for a period of time equivelent to the amount of time which may become at issue during the course of the resolution of INFLUENCE. Once a general idea of what a character is planning on doing and how important it is to the character has been determined the INFLUENCE period begins. During this period players may try to convince eath other of a variety of things, most frequently being to alter their immidiate plans to participate in some sheme or venture of the other player or character. This is why the priorities are determined. This convincing may be done either by actual spoken words simulating game spoken words or else by die roll which represents an abstraction of the spoken word. To ABSTRACT the INFLUENCE process by die roll follow the following steps.

One individual indicates another individual or group of individuals which s/he intends to influence. The player or character adds 5 to his/her die roll for each INTELLIGENCE LEVEL higher than Extremely poor, and if the individual has any Leadership s/he may add 10 to the die roll for each point of leadership. the dice are rolled and the following table consulted.

DIE ROLL	RESULT
0-	The intended influenceis completely blocked and refuted by the character. No portion of it's effects gets through. May cause hostile behavior.
1-10	The intended influence is blocked by the character.
11-30	The character listens but is not impressed.
31-70	The character may agree or not agree with the influence depending on his/her own feelings or a random die roll.
71-90	The character is favorably impressed by the influence.
91-100	The character agrees with the influence and will tend to act towards actually doing it if it is an action or performing whatever the influence advocates.
101+	The character has bought the entire bill of goods whole cloth.

This rule is only a more generalized version of the nonplayer character reaction rules contained in DUNGEONS AND DRAGONS and other games, but it does the job unless you have something better.

1.53 CONFLICT AND COMBAT

More often than not players will end up getting into a fight, and though I personally ran a campaign of LEGACY that went for almost two years before we needed a combat system at all I realize that this is not usually the case in role assumption games. My point is only that combat is only one ov a large variety of possible actions which may be taken by an individual.

1.53.1 The basic COMBAT SYSTEM is reflected by the activity and ability die roll goals and modifiers expressed in the basic effects portion of the ENABLER cards. Players describe which of these cards they are using by placing them face down on the table or floor in front of them, and once every person involved in the combat has placed his or her ENABLERS they all discuss in a orderly but rapid manner who is going to attack who. This is not a problem in a situation where only two fighters are involved, but larger groups may need some time to sort themselves out into nice even little fights. This may be already determined due to the positioning of the characters which may be represented on a MODULAR TERRAIN MAPPING HEX of the scale level 1 hex = 1 meter, or it may not be important as in the circumstance of ranged combat with weapons possessing a radius of effect such as atomic warheads. The confusion and dickering around deciding who fights who is a simulation of the individual target aquisition aspects of intermediate groups of fighters.

NOTE: If characters attack one character as a group they are subject to the ACTIVITY POOL MULTIPLIER rules on page 69 just as if the were building a brick barbacue.

Basic combat proceeds in these roughly organized rounds following the sequence of play listed below until either it ends or some outside influence puts a stop to it. Of course it can end with the destruction of one, neither, ot both of the combatents or sides. The resolution of combat is always in the hands of the people fighting. If the want to they can stop. If they do not want to they can continue.

SEQUENCE OF PLAY - BASIC COMBAT

1. All players eligable to participate in combat place the ENABLERS they will use in that round of combat face down in front of them.

2. Who fights who is hasseled out. If no aggrement can be reached befor an arbitrary 2 minute time limit expires the first character to attack gets his/her choice and everyone either has to decide instantly or else miss the combat rounds offensive option.

3. The characters ENABLERS are revealed unless they are of a type which need not be revealed. The effects of the combat round are computed and applied to the characters participating. The ACTIVITY POINT expenditures are recorded, and the STATUS of each character is changed if necessary to reflect his/her current condition.

4. The entire thing is repeated as many time as necessary until some type of resolution is achieved.

1.53.2 The advanced combat system employs the advanced effects portion of the ENABLER cards and a combat value track which may be constructed from a cribbage board, an old Broker game, a piece of paper with a dual track divided into spaces, or any other appropriate piece of what will do the job. The COMBAT VALUE TRACK should look something like the example below.

1	2	3	4	5	6	7	8	9	1	11	12	13	14	15	16	17

The formulas contained on the SKILL and TECHNIQUE ENABLER cards are combined with the characters ACTIVITY and CONCENTRATION POINT/FACTOR allocations and SUB-VALUES to determine a total attack and defense value. These values are recorded on the track above with opponent A's attack on the same track as opponent B's defense, and opponent B's attack on the same track as opponent opponent A's defense. If more persons than this are fighting the can either double up on the existing track or the track can be expanede to accomodate additional combatents.

The difference between one characters attack and the other characters defense is calculated and the tables below consulted to determine the result if any, of the attack. ATTACK - DEFENSE = ATTACK/DEFENSE DIFFERENTIAL

ATTACK/DEFENSE DIFFERENTIAL	EFFECTS
-20 to -11	Increases the defenders attack value by five (5).
-10 to -6	Increases the defenders attack value by three (3).
-5 to -1	Increases the defenders attack value by one (1).
0	99% WOUND
1	98% WOUND
2	95% WOUND

ATTACK/DEFENSE DIFFERENTIAL		EFFECTS
3		90% WOUND, 99% MAJOR WOUND
4		80% WOUND, 96% MAJOR WOUND
5		70% WOUND, 91% MAJOR WOUND
6		60% WOUND, 91% MAJOR WOUND
7		50% WOUND, 91% MAJOR WOUND
8	99% COMA,	40% WOUND, 81% MAJOR WOUND
9	98% COMA,	40% WOUND, 76% MAJOR WOUND

ATTACK/DEFENSE DIFFERENTIAL	EFFECTS
10	96% COMA, 30% WOUND, 70% MAJOR WOUND
11	91% COMA, 30% WOUND, 70% MAJOR WOUND
12	81% COMA, 25% WOUND, 60% MAJOR WOUND
13	76% COMA, 20% WOUND, 50% MAJOR WOUND
14	71% COMA, 20% WOUND, 50% MAJOR WOUND
15	61% COMA, 10% WOUND, 50% MAJOR WOUND
16-20	51% COMA, 5% WOUND, 40% MAJOR WOUND
21+	51% COMA, 5% WOUND, 30% MAJOR WOUND

The STATUS effects listed on the table above are explained on page 51 of the CONSTITUTION rules.

SEQUENCE OF PLAY - ADVANCED COMBAT

1. The individuals participating in the combat place the ENABLER cards they intend to use face down in front of them and make a notation of exactly how many ACTIVITY POINTS and CONCENTRATION FACTORS the individual is prepared to allocate or expend during that combat round.

2. The combatents reveal their ENABLERS and allocations and compute the effects of the ENABLER formulas, placing their attack and defense indicators on the proper positions on the COMBAT VALUE TRACK.

3. The Dexterity effects table on page 24 of the CONSTITUTION SUB-SECTION is consulted to determine the changes in the COMBAT VALUE INDICATORS which may occur due to the effects of Dexterity.

4. Any INTERVENTION ENABLERS possessed by any of the players involved in the combat may be played at this time.

5. The ATTACK/DEFENSE DIFFERENTIALS are calculated and the percentile dice rolled to determine wether or not any of the blows effected the opponent(s).

6. The entire thing is repeated to the extent required by the continuing demands of the combat situation.

1.54 RANGED COMBAT TARGETING

The clear plastic TARGET OVERLAY located on page 46 of the CONSTITUTION SUB-SECTION is used to determine wether or not a projectile or other method of extending destructive power over distance will strike it's intended target or miss, potentially striking something else ahich is significant to the game.

1.54.1 The procedure for targeting an object is as follows. Determine the range of the target in meters and complete the throwing formula or whatever method of firing or projecting the ranged effect to make sure it has sufficient range to actually reach the target. If the target is indeed within range a sihloutte must be constructed which will represent the appearence and likelyhood of hitting that target at that range. An example would be a Human at a range of 100 meters would at the most only fill five or six of the hexes of the target overlay. At the same time the same Human at a range of ten meters would nearly fill the target area, virtually garanteeing a hit of some type.

Once the sihloutte has been constructed the individual initiating the ranged combat lists all applicable die roll modifiers and determines wether or not s/he even needs to roll dice. Often the accumulated die roll modifiers are so many that they add up to 100 or the center hex without dice ever having to have been rolled.

The effects of wind or weapons error may be added in by predetermining that the actual hex hit will drift one or more hexes in one of the six directions determined by the hex grid. A wind intensity of 4 or greater will cause this. Drift may also be determined randomly using a six sided dice.

The small hex in the lower right hand corner serves a dual purpose. At first it indicates where the projectile goes if the die roll/die roll modifier combination is less than 10, and it also serves as a secondary sight which may be used to zero in further on the contents of a single hex of the target overlay or some other hexagonally shaped area using die roll modifiers divided by 10 and a single percentile die.

The game operator may wish to keep a stash of already prepared sihlouttes labeled as to their ranges so as to save time when using the target overlay. Other uses of the target overlay include the locations and random assignment of weather and other environmental effects, the location of STARSHIP TROOPERS during drops, random placement of resources, and a variety of other uses.

1.61 INFORMATION LEVELS

The INFORMATION SUB-SECTION contains rules and procedures which allow the game operator and the players to manipulate and use information as a resource within the course of play of the LEGACY game. The primary tool used to regulate, store, distribute, and control information is the INFORMATION LEVEL.

1.61.1 Rough definitions of the information levels used in the LEGACY game are listed on the chart below.

INFO. LEVEL	EXPLAINATION
*0	The lowest obtainable level of information. Represents information locked in the characters sub-conscious, ignored or mis-stored by the conscious mind, or otherwise useless to the character for the purposes of the game.
*1	Hints and clues are the usual fare for this INFORMATION LEVEL. The possession of *1 on a topic is considered equivelent to knowing that the topic exists but otherwise knowing nothing about it. Still useless for the purposes of the game except that it provides a direction in which more information may be found.
*2	Basic level of information. If a character found out that a certain phenomena existed and looked it up in the dictionary or atlas this would probably constitute *2. An encyclopedia would probably contain to much information to be considered *2.
*3	Increased usefulness and completeness of information. *3 is good for knowing the basic deal on a particular subject, but it is still inadequate for judging the relative importance of the information topic.
*4	Relatively complete information on the topic and hints and clues as to what else may be included or available which allows a character to evaluate and make sound judgements about the importance of that particular information topic.
*5	Threshold of information. The stuff that was hinted at in *4 is filled in and usually a feeling of knowledge and accomplishment is carried along with the information. Many information topics only go as high as *5, but the *5 itself does not contain information hinting at or suggesting wether or not it continues on up or stops there.
*6	If a character possesses *6 it is a definite indication that the information topic extends at least as high as *10. Otherwise doesn't mean very much.
*7	The beginning of the real clues as to whats going on and what might be in store at the higher levels of information within the topic.
*8	Expansion of the clues and hints as well as more useful information which the individual may use within the game.
*9	Relatively complete information about the topic. Allows the character to make judgements and evaluate what is likely to be remaining within the information topic.
*10	Threshold of information. The stuff that was hinted at in *9 is filled in and usually in a complete and final manner. Very few information topics extend beyond *10, but no clues or hints are contained in *10 suggesting wether or not higher levels of information exist in this particular topic.
*11+	Continues in the same cycle established by the *6 through *10 levels except that the importance and value of the information increases in direct proportion to how high the information levels go. Limitation *25 for asthetic reasons.

This is the philosophical structure on which the INFORMATION rules are hung. Basically the nature and function of the INFORMATION LEVEL is only to serve as an indicator of the relative value and importance of the information to the goals and purposes of the LEGACY game. Though having information of a high level is almost always a good idea, the type of information is often far more important than it's level.

1.61.2 To reflect the variability and differences between differing types of information the information contained in the LEGACY game is divided up into information topics. An information topic is defined by a key word or words which quickly and cleanly state what types of information can be expected to be found there. For this reason the name of an information topic itself is usually considered to be *4.

The asterisk followed by a number between 0 and 25 is the indicator for the information level, and information levels can be assigned ot a wide variety of things, including the rules to the game itself. The important thing to remember when assigning information levels to things is to keep in mind that the information topic involved should have enough different bits of related information to fill it but not so much that there is a whole bunch of different stuff that a character can or must find out about before s/he can advance an information level

Information topics are kept track of by the game operator, and some type of listing or summary of at least the major tidbits or clues which are floating around the game. As characters accumulate information they arrange it into the proper topics with the help of the game operator, (though the knowledge of what the different information topics around are is probably a high level piece of information itself) and the current highest information level achieved or obtained in that topic is placed alonside.. Using this system a character may keep track of his/her knowledge in a lot of different areas in a very small space.

1.61.3 The reason for devising rules for treating information as a resource in a role assumption game goes like this. The combination of fantasy, science fiction and mystery is hard to beat. This aside, I personally feel that it is a lot more interesting to wander around in the wilderness or in a dungeon searching for clues and information regarding what the deal is with the crazy world I am in and trying to take advantage of information I discover to increase my powers and abilities than I do wandering around in the wilderness looking for treasure and killing monsters and wild beasts for the exciting and idfferent part of play. One of the places that the DUNGEONS AND DRAGONS gmae system went wrong back in the earliest days when there was hardly anything more than the CHAINMAIL miniatures rules was the complete emphasis on the fighting aspect of role assumption gaming. I concede that a good fight now and then can be good fun, but so many of the DUNGEONS AND DRAGONS and other role assumption campaigns I have witnessed and studied consist basically of an endless and inexhaustable supply of wandering monsters which trap the players in a seemingly endless succession of battle after fight after skirmish after assault after melee, after attack, after defense, after retreat, after withdrawl, after boredoom.

It is fundimentally to give player characters something else to do besides beat up and kill things that the information rules were designed. I admit that they are far from perfect, but look at experience points and how much everybody pokes fun of them and how much everybody needs them because for a long time there was nothing better.

The analogy between experience points and information levels is a good one. Basically in both cases the game rule is trying to make something which cannot by mathimatically simulated by a simple equation into a hard, fast, and absolute rule. If obeyed exactly as ordered game operators will get the same kind of results from these information rules that you get when one of your D and D players kills some pirates and finds the large but believable amount of gold that they put into the hold of their ship which causes the player to advance umpteen levels for a piddling piece of work. Common sense is clearly indicated.

The only time I have seen experience point rules work is when the game operator waits until the end of a particular encouner or adventure and says "well, it seems that you guys did pretty well back there. It was a tough situation, and you guys not only survived but got something out of it in the bargin. I think that that encounter was probably worth about 600 experience points apiece except fot the dwarve that hid in the corner. He only gets 200." This works well because the game operator has replaced the rigid and often ludicrous experience point table with the knowledge and judgement contained inside his/her own head. As long as the game operator is fair and obeys the dictates of common sense the experience point system which bypasses the D and D tables will be the more effective and more realistic one.

In the same way I am encouraging all game operators to use these information rules except that many of them MUST be selectively ignores or redisigned on the spur of the moment in order tomake the whole thing work.

1.61.4 There are several information flows pulsing their merry way through the structure of the game which must be controlled and minitored by the game operator if information is to become an important and sought after commodity.

The first of these is players talking to other players. There is nothing inherently wrong with this, and it encourages enjoyment and interest in the majority of cases. The problem comes from one person who has a character playing in the game who just found out about an important piece of information telling another person who either also has a player character in the game or else lives with someone that does and can't wait to tell his/her boy/girl friend/associate, or whatever. This can usually be cleaned up sufficiently to allow the introduction of the information rules simply by explaining to the player characters how important it is that they not give each other a lot of information in the real world that does not represent a flow in the created world of the game. I have found that the two best wyas of keeping players from telling each other things which would spoil the game are; to tell them that the act of giving away information is identical to the act of giving away your best magic items or only maps to another player. It means giving then an advantage they did not formally have while weakening their own position. Most players will clean up their acts when the consider this.

The second is to carefully allow several types or pieces of information to enter and become part of the game which are interesting and fun to talk about but which do not give away secrets and do not spoil any of the information goings on behind the scenes.

The second major leak of information is through the inadvertent or accidental exposure of the game operators records and equipment to the players. If you want to have a lot of neat stuff going on that the players have to try to figure out you have got to take precautions to keep it secret and hidden from the players unitl they finally figure it all out. This may be done by keeping tighter security around the game operators materials and enforcing a don't come near the game operator's table or area without permission rule.

Another cause of information leakage are the sources for the game operators concepts and ideas. If you borrow or steal ideas from books and movies, and all game operators due eventually, you should protect the confidentiality of your sources. I have several times had the maddening experience of having put a great deal of work into adapting the plot or theme from a science fiction book I particularily enjoyed into the information structure of my game only to watch some player come along who read the same book and rip through the whole thing in less time than it took me to build it. This is not only upsetting to the game operator but can be upsetting to the other players as well. For a little while one of the players in ERS was having a particularily strong run of good fortune caused primarily by his running into plot after plot which I had lifted from what I thought were obscure books. I couldn't understand what was going on for a long while, because every time this character would encounter a placed situation that looked like it may have come from a book he would beat his head against it for the remaineder of the game session, and then the next time we played he would rip right through it as if it wasn't there. It turned out that whenever he felt that the situation might have been borrowed or stolen from a book he would go through my library and read the back covers of all of the books until he found the one that sounded the most like the situation in the game and he would then read it and replace it without telling me. I let people freely barrow my books, and it wasn't that he was doing anything wrong so much as he was using a strategy which had no relationship to the events in the game or his vharacters abilities, and the other players felt left out and cheated because he had all of these outside research materials which helped him prosper in the game while they had to continue in the normal fashion. It took a while to convince the other players to stop reading every book that they saw me reading or carrying around with me.

1.61.5 The INTELLIGENCE and especially the Memory and Abstract thought SUB-VALUES should have an important effect on the way information is handeled and processed in the game but I have yet to test an idea or rule which seems worth the trouble of using. I encourage the game operators using these rules to experiment with this, and if they come up with anything worthwhile please write me and tell me about it for that is the type of rule which would serve to tie these information rules into the game rather than the spliced on effect which is currently about the best that I have been able to manage and still make playable.

1.61.6 If a player has a character and learns secrests about the game and his/her character is then killed the game operator is faced with a serious problem. The player must either be started in a new character who would have a way of already knowing the secret information, or else the game operator must enforce a simulation of the players ignorance. Neither of these are ideal solutions, and this problem should be kept in mind by those using these rules.

ENVIRONMENT·

ENTHALPY·

inter~whirling dervish
of bright suns thrusting
out the time stream
and winding tightly
competing facet decays
with death's constant feeding
marching as to infinity
and gathering speed~

CF

Shannon Berger

ENVIRONMENT•

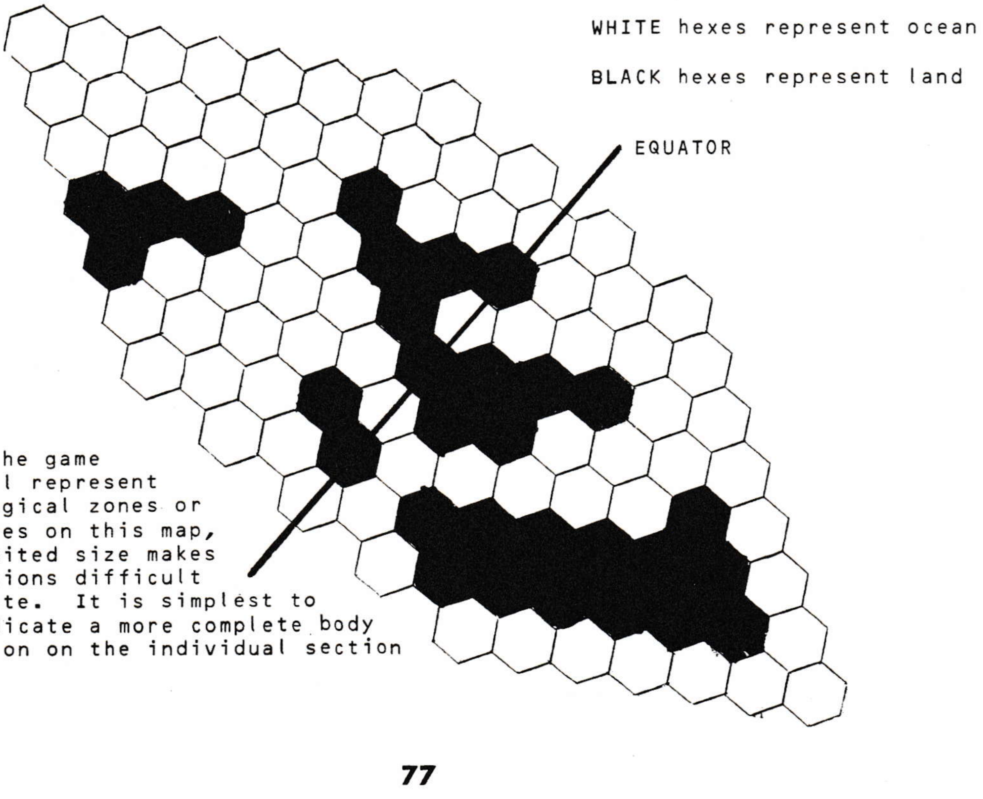
- CONTENTS

TERRAIN MAPPING	Rules and information pertaining to the mapping of the planetary surface.	page **77**
FLORA AND FAUNA	Rules and procedures simulating the existence and effects of plants and animals.	page **89**
CLIMATE AND WEATHER	Rules and procedures simulating the existence and effects of climate and weather.	page **93**
GEOSPHERE	Rules and procedures used to abstract the existence and effects of the overall geosphere, both past and present.	page **97**

2.11 MAPPING THE ENTIRE PLANET

The PLANETARY INFORMATION SHEET contains a map composed of six oval sections. Together these sections represent the entire surface of the planet, and the rough outlines of all major geological and planetological features are represented on it. Usually this means only large bodies of land, water, and the coast line but any of the terrain mapping symbols used on the PLANETARY SECTION MAPPING - SCALE LEVEL: XI (11) 1 HEX = 1,000 Kms. can be used on the overall planetary map.

A single section of the PLANETARY INFORMATION SHEET map is represented below. Six of these comprise the entire planet except the poles, and each may be mapped in more detail using the PLANETARY SECTION MAPPING rules on the next page.



Often the game operator will represent active geological zones or other features on this map, but it's limited size makes such indications difficult to interperate. It is simplest to wait and indicate a more complete body of information on the individual section maps.

The PLANETARY INFORMATION SHEET contains many blanks for a variety of facts and statistics. These are fully explained in the GEOSPHERE SUB-SECTION along with example forms for both Earth and Skye-Aa. These rules pertain only to the graphic representation of facts and decisions determined by another SUB-SECTION, and do not reflect the only point at which the environments geology and natural history are considered.

2.12 MAPPING THE PLANETARY SECTION

Each planet is assumed to be roughly spherical and of a diameter at the equator of 42,000 kilometers. This value is quite close to Earth's. The sphere is represented on paper in two ways, sections and the polar junction of sections. First to be explained will be the planetary mapping section.

2.12.1 The planetary section is an oval collection of 100 numbered and 6 un-numbered hexes appearing by itself on the PLANETARY SECTION MAPPING SHEET. A variety of symbols can be used toindicate characteristics of the 1,000 kilometer wide areas of land and water. These include all of the elements used on mapping more detailed scale levels, while the 10% portion of the entire area may be enlarged and more details represented. For this reason the definitions and explainations of the TERRAIN EFFECTS chart have been witheld until the SCALE LEVEL MU (10) 1 HEX = 100 kilometers rules.
Without much explaination two examples of PLANETARY SECTION MAPPING SHEETS will be presented, one for Earth and one for Skye-Aa. Most of the information they contain is either straight forward, assumed for obvious reasons, or included in the definitions of symbols which begins on page 8 of the PREFACE SECTION. Below a brief comment on several of the types of information requested on the PLANETARY SECTION MAPPING SHEET is offered. If any of the facts or statements contained on the PLANETARY SECTION MAPPING SHEET are confusing or uncertain, the SCALE LEVEL MU (10) 1 HEX = 100 Kms. rules and the designers notes may be consulted for additional information.

PLANET and SECTION or self evident. The case of name stands mute and sections are arbritrarily assigned to maximize the percentage of a continent which does not have to be extensively mapped on two seperate planetary sections.

HIGHEST ALTITUDE and LOWEST ALTITUDE should represent the actual extremes of altitude for that 1,000 Km. wide area rather than the averaged altitude reflected by the individual hexagons altitude values.

The NUMBER OF LAND, WATER, AND SALT WATER hexes is an important input to the Climate and Weather rules. Large areas of land and water behave very differentlt from a climactic standpoint, and any decision to change Earth approximate proportions may result in extreme variances in the planets weather patterns. By this I do not mean that no other ratio and positioning of land to water on a planets surface is stable, but rather that changes in ratio and positioning are likely to cause substantial variations in the manner in which the climate performs it's vital functions. If other proportions are chosen be prepared to assess and enforce the apparent effects of those changes. To little is known about the weather to predict it consistently, and the climate and weather SUB-SECTION is necessarily limited. Since it does not cover the consequences of climactic variations other than the small changes for Skye-Aa, the drastic alteration of what we are familiar with will cause the game operator to design an entirely new Climate and Weather SUB-SECTION.

ACTIVE GEOLOGICAL ZONES should contain the names and descriptions of any significant or important geological phenomena which have the power to work immediate changes in the game environment. Examples would be glaciers related to ice ages, vulcanism, major faults and earthquake zones, mountains wether forming or eroding, and perhaps the recent or approaching impact point of large meteorites.

DISTINGUISHING FEATURES can represent a comment or remark from the game operator pertaining to the appearence or characteristics of the planetary section. Concievably the DISTINGUISHING FEATURES area may contain reminders of events which occured upon that terrain. If needed, the DISTINGUISHING FEATURES area can be considered the display area for any type of information concerning that section of the planet which cannot be displayed in the other information areas.

The GEOLOGICAL TIME LINE and resource information displayed on the back is explained in the GEOSPHERE SUB-SECTION.

The HEXES MAPPED ON SCALE LEVEL MU (10) 1 HEX = 100 Kms. area containing numbers ranging from 1 to 100 and two circled series ranging from 1 to 19. These represent a listing of which individual hexes contained within the planetary section have been magnified and mapped on the next more precise scale level. The circles numbers represent the polar areas whose numbering system is explained in a few pages.

PLANETARY SECTION MAP - SCALE LEVEL: XI (11) 1 HEX = 1,000 Kms.

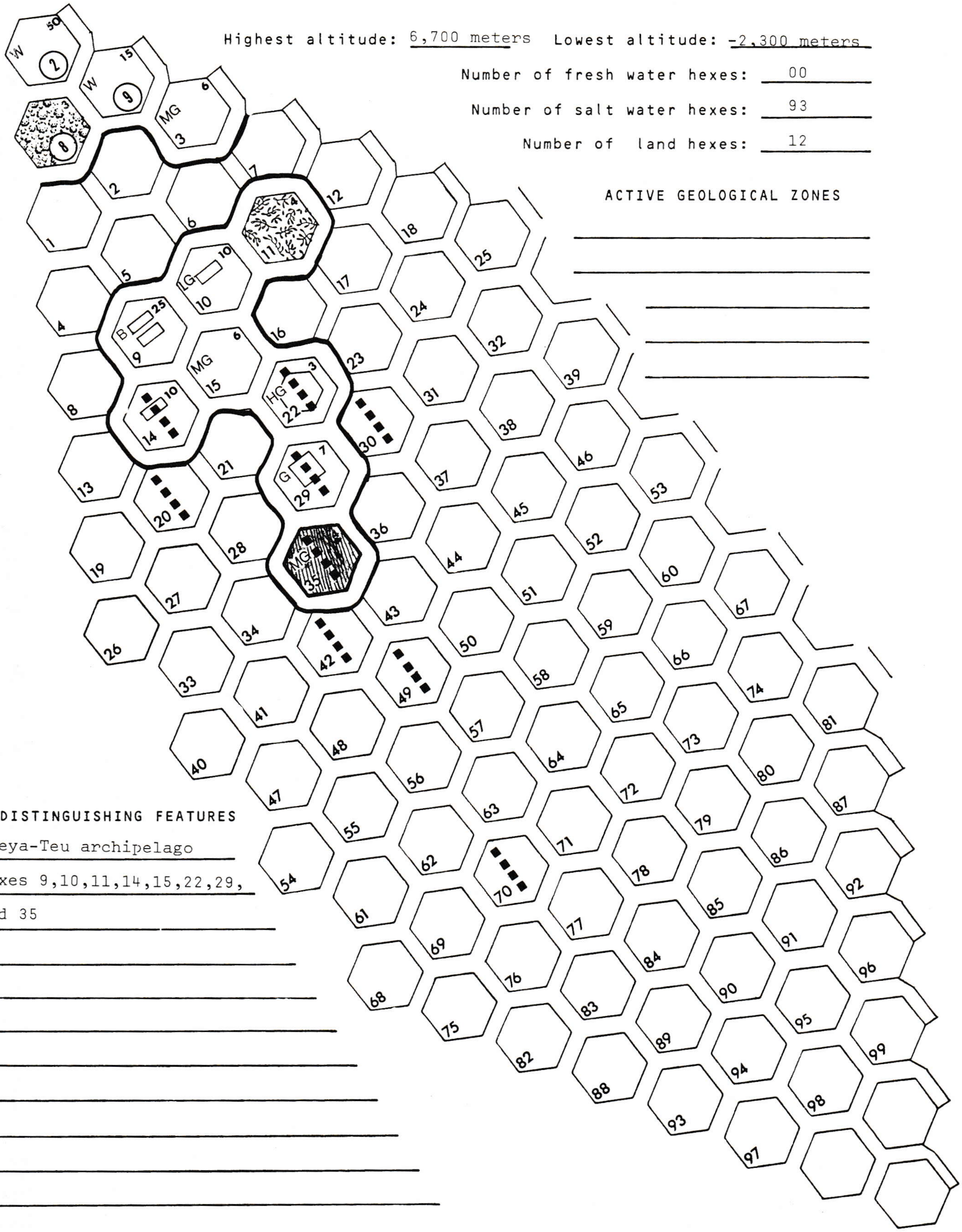
PLANET: Skye-Aa SECTION: one (1)

Highest altitude: 6,700 meters Lowest altitude: -2,300 meters

Number of fresh water hexes: 00

Number of salt water hexes: 93

Number of land hexes: 12


W
50
2
W
15
9
3
8
MG
6
3
1
2
4
5
6
7
4
11
12
LG
10
10
B
25
9
MG
6
15
16
17
18
25
8
10
14
HG
3
22
23
24
32
13
21
G
7
29
30
31
39
20
MG
35
36
37
38
46
19
27
28
44
45
53
26
33
34
42
43
51
52
60
40
41
49
50
59
67
47
48
57
58
66
54
55
56
64
65
74
81
61
62
63
72
73
80
87
68
69
70
71
79
86
92
75
76
77
78
85
91
82
83
84
90
96
88
89
95
99
93
94
98
97

ACTIVE GEOLOGICAL ZONES

DISTINGUISHING FEATURES

Keya-Teu archipelago

Hexes 9,10,11,14,15,22,29,

and 35

2.13 MAPPING THE PLANETARY POLAR COMJUNCTION

At the top and bottom of each planet exists a point at which all six of the planetary mapping segments bend together and meet. This area is known as the polar conjunction and is mapped on a seperate form known as the PLANETARY POLAR MAP. All but one of the hexes located on the PLANETARY POLAR MAP are also located on the six PLANETARY MAPPING SEGMENTS, but it is much easier and more convenient to create a seperate map of the point on the top and bottom where they join then it is to imagine the connections while looking at a single segment of the PLANETARY INFORMATION SHEET. Especially in the case of planets with a large single mass of land centered around the pole the PLANETARY POLAR MAP is invaluable.

2.13.1 The PLANETARY POLAR MAP sheet is a roughly spherical representation of the area which may be considered to lie within the arctic circle of the planet. The hexes on the edges of the planetary mapping segments are joined together at only one hex side for each pair, and the black triangular shaped areas between the borders of the segments are only to indicate hex sides which may not be used for the purposes of movement. Effectively this means that the hexes immediately along the segment bordor have only five sides, as there are only five other hexes to which an individual may travel, (4 on the same segment and 1 on the adloining segment).

2.13.2 The same types of information requested on the PLANETARY SEGMENT MAPPING sheet are requested on the PLANETARY POLAR MAP, and the comments on page 78 apply to them as well.

On the back of the POLAR MAP in the hexes mapped on the next lower or MU scale level portion hexes 1-12 are listed as being among the hexes which may be mapped for each segment. This is technically true only if the pole mapped is the north pole. Otherwise if the pole mapped is the south pole the overlaping hexes shared by both polar and segment maps are the 88-99 hexes. This discrepency is a minor one, but I mention it to avoid confusion.

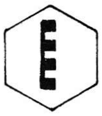
2.13.3 Frequently the poles of a planet are covered by ice and snow due to the cold temperatures found there. This need not always be true, but if and when it is I recommend the following methods of indicating the geological nature and characteristics of the pole(s).

1. To start with the areas of land and water should be mapped just as if the polar region was the same as any other region of the planet. The difference which should be readily apparent is the lack of vegetation.

2. Next all of the hexes containing water but which are frozen over to form a permanent layer of ice should me colored white, indicating the presence of ice and snow.

3. The land and island areas of the pole should also be marked as white, and if the covering od ice and snow is sufficient to bridge the gaps between the island areas for the purposes of movement a line should be drawn through the island squares connecting them. If not the island squares may be left unconected. An example of this is shown in the hexagon drawn at right.

4. Additional polar maps may be required, each representing the conditions at or during a specific period of time if there is a great deal of seasonal variation in the appearence and characteristics of the ice cap.



2.13.4 The polar map represents both the area in which the six segments join together and the two points at which the axis of planetary rotation (spin) bisect the sphere. It is perfectly possible though not likely that the axis of the planet be pointed towards the planets sun and the nature of the planetary spin be constructed such that one of the poles was in perpetual day and the other pole was in perpetual night. This would be a curious state of affairs, but the possibility can also be represented by using the POLAR MAPS in the same basic fashion as for other orientations of the planets axis. The interseting aspect of this type of orientation would be the apparent circular motion of the sun in the sky of the hemisphere pointing towards it and the absence of the normal periods of day and night.

If game operators would like to experiment with this or other possible configurations of the planets orientation towards it's sun they are encouraged, but careful thought must be given to the implications and effects of changing the known and understood motions of the planet Earth.

PLANETARY POLAR MAP - SCALE LEVEL: XI (11) 1 HEX = 1,000 Kms.

PLANET: Skye-Aa

Highest altitude: 16,200 meters Lowest altitude: -7,500 meters Number of land hexes: 40

ACTIVE GEOLOGICAL ZONES

Number of salt water hexes: 48

Number of fresh water hexes: 03

Section 3 - Hex ⑫: Active and extremely violent matrix of magma penetrations of the surface. Vulcanoes.

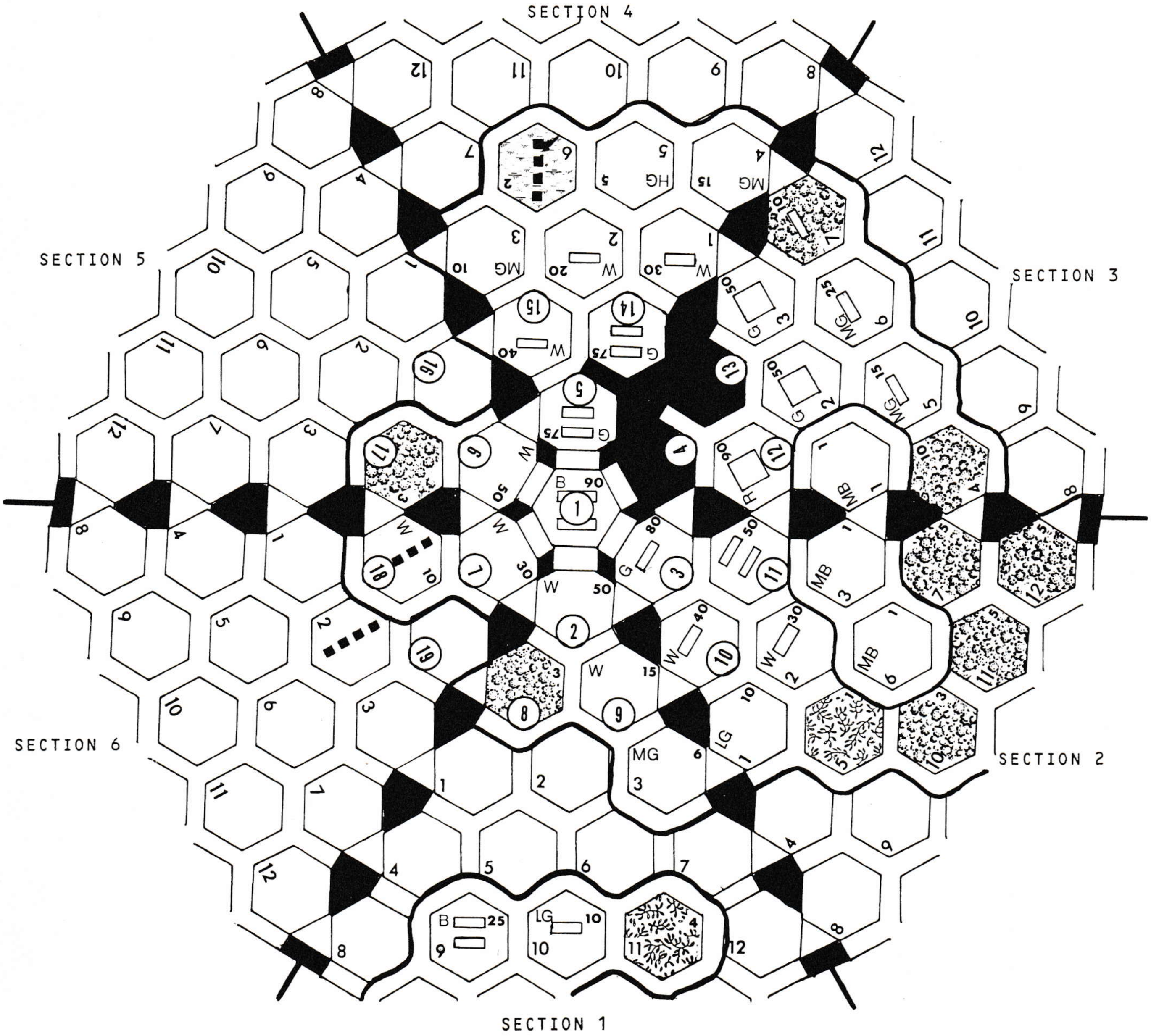
[✓ NORTH POLE] SOUTH POLE

DISTINGUISHING FEATURES:

Massive fresh water inland sea, Section 3 - Hex 1, Section 2 - hexes 3 and 6

Extremely broken and impassible terrain mountains over 16 kilometers in altitude at the highest point. Section 3 - Hexes ④ ⑫ ⑬ 2 and 3

Keya-Teu archipelago: Section 1 - hexes 9 10 and 11



LEGACY (copyrighted 1978)

2.14 THE MODULAR TERRAIN MAPPING HEX

All of the mapping of the planetary surface done on scale levels of MU and lower is accomplished using the MODULAR TERRAIN MAPPING HEX. The MODULAR TERRAIN MAPPING HEX is so called because it may be combined with other MODULAR TERRAIN MAPPING HEXES in a variety of combinations and orientations, it is used to represent the terrain characteristics of a planetary surface, and it is hexagonal in shap to facilitate it's use with other MODULAR TERRAIN MAPPING HEXES and to fit within the structure of the map on the larger scale level of which it is but a subset.

2.14.1 The first important aspect of the MODULAR TERRAIN MAPPING HEX which must be explained is the variability of it's scale level. The PLANETARY SEGMENT and PLANETARY POLAR maps consist of a series of hexagons arranged into a structure which best represents the characteristics of the outer surface of a sphere. The MODULAR TERRAIN MAPPING HEX is hexagonal in shape, possesing six sides, and contains 100 smaller hexes within it's boundries. The MUDULAR TERRAIN MAPPING HEX may be used to represent any of the hexes contained within either the PLANETARY SEGMENT or PLANETARY POLAR maps, or it may be used to represent a single subhex of which it is formed. In this way any hex mapped by the players or game operator may be expanded into a larger hexagon containing 100 hexagons, each of the same size as the original hexagon being studied. Each MODULAR TERRAIN MAPPING HEX is effectively a 100% expansion of the area under study, and each MODULAR TERRAIN MAPPING HEX represents 1% of the MODULAR TERRAIN MAPPING HEX of which it is a part. Yet another way of explaining this is to use an example. The PLANETARY SECTION MAP on page 79 contains one hexagon which is shaded in be diagonal lines. This hex, numbered 35, can be represented on a MODULAR TERRAIN MAPPING HEX if further detail or information concerning it is desired or required. This has in fact been done, and the MODULAR TERRAIN MAPPING HEX located on page 85 is the same as hex 35. In turn the hex numbered 35 or any of the other hexes contained in the MODULAR TERRAIN MAPPING HEX could be expanded in the same manner. Each time such an expansion occurs the scale level of the map is reduced by one level, until eventually after 7 such reductions the scale level ETA or 1 hex = 1 meter is reached. The scale level represents the distance from parallel side to parallel side of a single small hexagon of the MODULAR TERRAIN MAPPING HEX. This means that if the scale level of a MODULAR TERRAIN MAPPING HEX were KAPPA or 1 hex = 1 kilometer the distance from parallel side to parallel side of the large hex or TERRAIN MAPPING HEX would be ten times that or 10 kilometers.

2.14.2 Each time the scale level is decreased the level of detail which may be represented about the planet and that particular portion of it's surface increases. At the same time the number of TERRAIN MAPPING SYMBOLS used can increase and the meaning of these symbols and colors is more definite.

If the scale level is increased detail is lost. Say that a hex containing a river, forests, a coastline, and mountains had to be reduced to a single hex agon instead of an entire MODULAR TERRAIN MAPPING HEX. The area in which information could be displayed would be reduced to only 1% of what was formerly available, and only the most general of the hexes features could be retained. Specific rules determining what features of a hex are retained when the scale level is increased are listed in the TERRAIN MAPPING SYMBOL DEFINITIONS which start on page 86.

2.14.3 The MODULAR TERRAIN MAPPING HEX contains blanks for information which is identical to that requested for the PLANETARY SECTION and POLAR maps. This information may be filled in if the map is to be retained in a notebook or other method of storage as a master map or reference map, but the MODULAR TERRAIN MAPPING HEXES which are used in the course of play by the game operator and the players are cut out and glued to a cardboard backing so that they may be joined with other MODULAR TERRAIN MAPPING HEXES. I reccomend that the game operator fill out the indicated information and complete each PLANETARY MODULAR TERRAIN MAPPING HEXAGON sheet with all of the black markings and values such as altitudes, symbols, altitude and coast lines, and other types of markings. Once this has been done the entire page may be photocopied and the copies colored in and either be cut out, covered with a plastic film to protect them and mounted on a cardboard backing or bw retained in a notebook to act as a master map describing that particular piece of terrain for the game operator to refer to.

2.14.4 Each MODULAR TERRAIN MAPPING HEX contains 100 smaller hexagons, each with a number ranging from 1 to 100. This numbers allow the players and game operator to identify particular hexes within the MODULAR TERRAIN MAPPING HEX either for the purposes of playing the game or for locating a resource, position, or for indicating the position the MODULAR TERRAIN MAPPING HEX occupies within the larger MODULAR TERRAIN MAPPING HEX of which it is but a subset.

2.14.5 Each MODULAR TERRAIN MAPPING HEX may be oriented in any one of three possible directions. This increases the utility of each MODULAR TERRAIN MAPPING HEX mapped by the game operator as it may be reused two other times in a different orientation. This greatly reduces the number of hexes the game operator must map in order to have enough to play the game, and even allows a hex originally intended to map an area on one scale level to represent an area mapped on another scale level under certain circumstances. To facilitate the use of MODULAR TERRAIN MAPPING HEXES in any of the three possible orientations the numbers of the small hexes of which it is comprised face in three different directions corresponding to the three possible orientations. This trend may be continued when the game operator maps his/her own MODULAR TERRAIN MAPPING HEXES, and when all of the information in the small hexes face in the direction corresponding to that sections orientation the reading of this information by the game operator and the players in the various orientations is easy and does not significantly change regardless of the orientation of the hex. A study of the example MODULAR TERRAIN MAPPING HEX on page 85 serves as an example of what this means. Care and effort expended by the game operator at this point to arrange the information contained within the hexes in the same manner will be rewarded later by the ease with which hexes designed for specific purposes or areas can be put together in different orientations to create completely new areas of terrain without requiring the additional construction or design of new MODULAR TERRAIN MAPPING HEXES.

2.14.6 When the game operator desings and constructs a MODULAR TERRAIN MAPPING HEX to represent a specific area on the planets surface the orientation of the hex should be clearly marked, and an arrow indicating the direction of North should be included somewhere on the page. This is to prevent the accidental use of the hex in the wrong orientation, and a hexes arientation can most easily be indicated by circling the appropriate orientation marked on the sheet itself as has been done on the example on page 85.

2.14.7 It may be convenient for the game operator to devise an indexing system for the MODULAR TERRAIN MAPPING HEXES and to code each one on the back as to it precise position on the planets surface and also a general number unique to that particular hex so that is may be specified as the same hex even if it appears in several different orientations at several different points on the planets surface. Below is a suggested indexing system which coincides with the planetary mapping method described on the proceeding pages.

PLANET / SECTION / MU HEX LOCATION - ORIENTATION / LAMBDA HEX LOCATION - etc.

For example a hex located on the planet Skye-Aa in the first section in hex 22, located in hex 25 on the next lower scale level and in 53 of the next lower scale level could be written Skye-Aa/1-22/25-1/53-2/. The orientation of hexes other than the target hex itself need not be included, and the the name of the planet may be coded or abbreviated to form an even shorter index if desired. Whatever the game operator does I recommend that such a system be used as it allows the location of each hexagon to be specified quickly and easily on the back and this can save the game operator and the players substantial time and trouble.

As far as an individual number or designation identifying each MODULAR TERRAIN MAPPING HEX I suggest that they be numbered according to the order in which they were constructed.

2.14.8 When joining MODULAR TERRAIN MAPPING HEXES together the adjacent sides must share both a common vegetation type and a common altitude. A study of the edges of the MODULAR TERRAIN MAPPING HEX on page 85 will indicate that hexes on the very edges are only half in the hex. The other half of the border hexes is in another MODULAR TERRAIN MAPPING HEX, and because it is often not known what the other hex is or what it's characteristics are it is important to know and understand what the characteristics of the hexes border are.

The single most important rule which applies to the design and construction of MODULAR TERRAIN MAPPING HEXES is that all three of the ½ hexes along the edge of a given hex side must have the same altitude and vegetation type. This is so the hex can match up with other MODULAR TERRAIN MAPPING HEXES.

The second important thing that the game operator can do to aid in the matching of MODULAR HEXES is to use a limited number of different vegetation types and altitudes along the hex bordors. This will not significantly reduce the interest or characteristics of the MODULAR TERRAIN MAPPING HEX itself, and will greatly increase the number of hexes which may be joined together. I have found that bordors with altitudes of 0,1,3,5,7, and 10 will allow me to map almost any part of the planets surface except the very high mountainous regions and means that there are only six possible altitudes to match in most instances. As far as vegetation type goes I have found that a combination of ocean, continental shelf, medium vegetation, and high altitude vegetation will cover almost every situation. This means that there are 24 different hex side configurations possible, and with a little care the game operator should be able to construct a set of MODULAR TERRAIN MAPPING HEXES which may fit together in a large number of different ways.

2.14.9 It is possible and in some cases preferable to create a set of MODULAR TERRAIN MAPPING HEXES without reference to the PLANETARY SECTION and POLAR mapping sheets, and if done this will allow the game operator a nearly infinite freedom in the different ways in which s/he may combine the MODULAR TERRAIN MAPPING HEXES. In fact during the playtesting of the LEGACY rules I constructed a set of 25 prototype MODULAR TERRAIN MAPPING HEXES to see wether or not it would be worth the trouble to map the entire planet using a similiar system. I soon discovered that I could make five different complete islands and at least 15 different coastlines, and that the MODULAR TERRAIN MAPPING HEXES were so much fun to play with that I was neglecting other portions of the game design work because I was always playing with them and trying out new combinations. I soon developed a game which required that I use all of the hexes to create as many different areas of land as I could, and whenever I left the MODULAR TERRAIN MAPPING HEXES laying around the house other people would pick them up and start playing with them themselves.

Clearly there are substantial side benifits to having such a modular terrai mapping system, and I encourage players and game operators to adapt the system to as many other games as the feel the energy for.

2.14.10 When creating maps using the modular system it is also important to keep in mind which scale level the maps are likely to be used for. Terrain mapped on different scale levels has different characteristics, and for the most part the maps intended for one scale level can not be transfered convincingly to another scale level. The major difficulty in this regard is the variation in altitude, for in the lower scale levels the altitude of hexes is likely to change considarably in a short distance while the larger scale levels tend to even out the intensity of altitude change. Often maps from one scale level may be interchanged with maps from the scale level immediately above or below it, but care should be exerted in the selection of these trans-scale level MODULAR TERRAIN MAPPING HEXES to make sure that some impossibly high cliff or something similar does not slip through.

2.14.11 To prevent the game operator from the need to make a set of MODULAR TERRAIN MAPPING HEXES for each scale level I suggest strongly that s/he select one of the scale levels for frequent use and that only special or general purpose hexes be mapped on the other scale levels. The scale level selected for the majority of the maps should be in balance with the needs and intentions of the game operator and the players, but playtesting has shown that in almost all circumstances the LAMBDA or 1 hex = 10 kilometers scale level is the most useful and most frequently needed of all of the possible scale levels. This corresponds to roughly 6 miles per hexagon, which is the scale level used for most DUNGEONS AND DRAGONS wilderness maps.

To act as a handy and labor saving solution to occasional encouters and situations which must be resolved on other scale levels I recommend that the game operator photocopy several of the MODULAR TERRAIN MAPPING HEX blank forms and combine the hexes to form a large area containing perhaps 7 or more of the MODULAR TERRAIN MAPPING HEXES. This combination of large hexes may be covered with the contact clear plastic type of protective covering commercially available and areas of the planet may be temporarily mapped on it using grease pencils or specially formulated magic markers. This is also convenient for mapping the interiors of buildings or dungeons and is ideal for constructing the immediate area of a conflict situation by marking trees, bushes, rocks, and other types of terrain features on the maps with a grease pencil and using counters or miniatures to represent the combatents. This should be done using the ETA or 1 hex = 1 meter scale level.

2.14.12 The game operator should make a series of decisions before creating any maps such as what way s/he wants to color them, what terrain mapping symbols s/he will use if the LEGACY symbols are not acceptable, and which scale levels s/he wants to represent on permanent maps. Care should be taken to insure that the colored pencils or magic markers chosen for coloring in the maps will remain available for several years and that the terrain mapping symbols contain all of the information that will be needed for the game down the line.

PRODUCTION NOTE: When coloring in the maps care should be taken to not use the type of magic marker which makes the photocopy lines smear. This is why I prefer colored pencils. Photocopying machines are not size constant, so if you want your hexes to fit together do not get them photocopied piecemeal. Otherwise fit problems will occur.

PLANETARY MODULAR TERRAIN MAPPING HEXAGON - SCALE LEVEL: MU 1 HEX = 100 kms.

PLANET: Skye-Aa SECTION: one (1) LOCATION: Hex 35

Highest altitude: 900 Kms. Lowest altitude: -400 Kms. Number of land hexes: 48

Number of salt water hexes: 50

Number of fresh water hexes: 02

NORTHERN HEMISPHERE SOUTHERN HEMISPHERE

ACTIVE GEOLOGICAL ZONES

Hex 92: High cliffs prone to rockslides

Hex 30: Hot springs, volcanic in nature

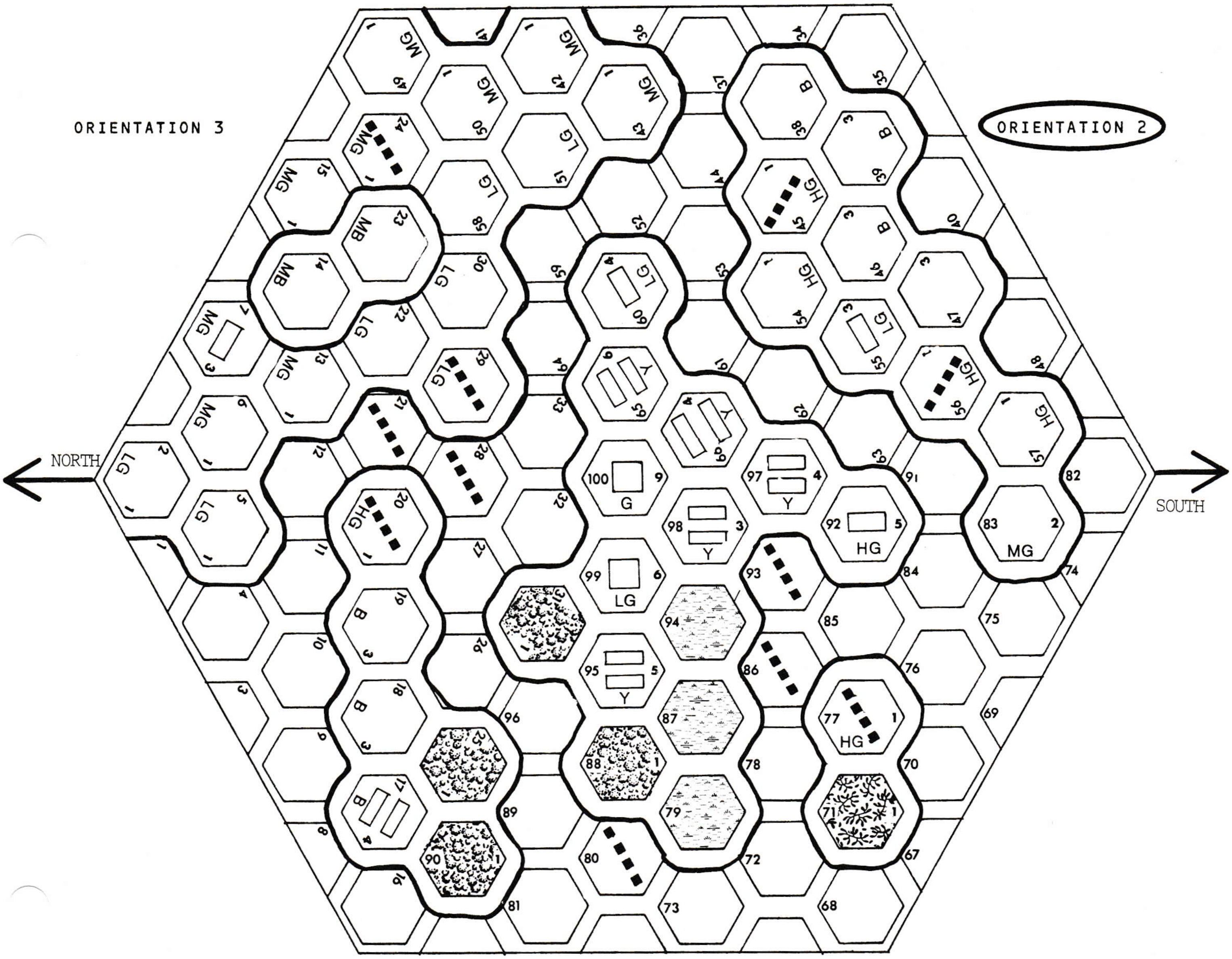
DISTINGUISHING FEATURES:

Hexes 23, 14: Inland lake

Hexes 100, 99: Mountainous terrain

Hexes 94, 87, 79: Marsh islands

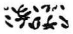
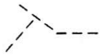
Hexes 92, 97: tall pinnacle seperated from the sea by high cliffs subject to frequent rockslides and avalanches in severe weather.



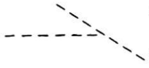
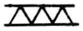
ORIENTATION 3
ORIENTATION 2
ORIENTATION 1
NORTH
SOUTH
100 G 9
99 LG 6
98 Y 3
97 Y 4
95 Y 5
92 HG 5
83 MG 2
77 HG 1
94
87
79
88 1
90 1
71 1
93
86
80
96
89
81
73
72
78
85
84
91
82
74
75
76
70
69
67
68
MG
LG
MB
HG
B
Y

TERRAIN MAPPING SYMBOLS

COLOR	NAME	TRAIL BREAKING COST
LIGHT BLUE	CONTINENTAL SHELF	Water travel ENABLER
MEDIUM BLUE	FRESH WATER	Water travel ENABLER
DARK BLUE	OCEAN	Water travel ENABLER
YELLOW	WASTELAND DESERT	x2
BROWN	BARREN	x1
LIGHT GREEN	LIGHT VEGETATION	x1
MEDIUM GREEN	MEDIUM VEGETATION	x2
DARK GREEN	HEAVY VEGETATION	x3
WHITE	SNOW/ICE	x2
GREY	HIGH ALTITUDE VEGETATION	x1
BLACK	IMPASSIBLE	Movement not permitted
RED	GEOLOGICAL ACTIVITY	variable

SYMBOL	NAME	TRAIL BREAKING COST
⬡	CLEAR	x1
⌬	FERTILE ABUNDANT	x2
▭	ROUGH	x2
▭ ▭	BROKEN	x3
□	MOUNTAINOUS	x4
	WOODED	x1
	JUNGLE	x2
	MARSH/SWAMP	X3
	CULTIVATED	x1
■ ■ ■ ■	ISLANDS	Water travel ENABLER
	GRASSLAND SAVANAH	x1
	TRAIL	x½
	ROAD	x¼
1	ALTITUDE	x1
○	POPULATION CENTER	x1
△	ADDITIONAL COST	variable

HEX SIDE COLORS AND SYMBOLS

COLOR	NAME	TO CROSS	TO TRAVEL ALONG
BLUE	RIVER	variable	ENABLER
YELLOW	BEACH	x1	x1
BROWN	BARREN	x1	x1
LIGHT GREEN	LIGHT VEGETATION	x1	x1
MEDIUM GREEN	MEDIUM VEGETATION	x1	x2
DARK GREEN	HEAVY VEGETATION	x2	x3
WHITE	GLACIER	x2	x2
GREY	HIGH RIDGE	x2	x1
BLACK	IMPASSIBLE	Movement no permitted	
RED	GEOLOGICAL ACTIVITY	variable	
	TRAIL	as color	x½
	ROAD	as color	x¼
⟶	DIRECTION OF FLOW	as color	as color
	CLIFF	ENABLER	as color
	SLOPE	x2	as color

FORAGING AND HUNTING AND GATHERING VALUES AND MODIFIERS

TERRAIN TYPE	WATER	LOST	HUNTING AND GATHERING
OCEAN, SHELF	0%	variable	FISHING ENABLER
FRESH WATER	100%	variable	FISHING ENABLER
DESERT, BARREN	5%	25%	2%
VEGETATION	10%	50%	5%
HIGH ALTITUDE	5%	10%	3%
SNOW, ICE	100%	75%	1%
FERTILE, ABUNDANT	20%	25%	10%
ROUGH, BROKEN	10%	50%	5%
MOUNTAINOUS	15%	75%	10%
WOODED	5%	25%	10%
JUNGLE, MARSH	25%	100%	25%
GRASSLAND	2%	5%	4%
TRAIL	30%	-10%	20%
ROAD	0%	-50%	-50%
POPULATION CENTER	100%	-100%	-100%

2.15 TERRAIN MAPPING AND MOVEMENT

The LEGACY movement rules are different than those of other games because the movement point, the fundimental unit of measuring and regulating movement, is defined in terms of time rather than of distance. Of course the distance traveled can be derived from the movement point, but it is a secondary rather than direct derivation.

2.15.1 A MOVEMENT POINT is defined as the distance which an individual can travel in 100 units (2.5 hours). The actual distance varies depending on the ACTIVITY STATE of the individual or group. The range is from 2 Kms. at the migration state to 25 Kms. for the march state. Because of the variety of scale levels used in the LEGACY game system the MOVEMENT POINT is sometimes discussed in terms of the MOVEMENT POINT TENTH (.1 MP). This represents the distance an individual can travel in 10 units (15 Min.) and varies from .2 Kms. to 2.5 Kms. Depending on the scale level on which the players are moving they may travel many, a few, or just a fraction of one hex in a turn. The definition of a turn also varies, so to cope with all of these variable factors the rule governing movement is written in an unusual way as expressed below.

MOVEMENT RULE: An individual declares which of the MOVEMENT ACTIVITY STATES s/he will travel at and describes the route which will be followed if known. Then the TRAIL BREAKING COSTS along the route are computed and an estimate is made by the game operator as to the distance the individual(s) will be able to travel before nightfall, RECOVERY PERIOD, or whatever natural or imposed barrier will determine when the individual(s) has ended his/her movement. After getting a feel for the probable duration of the move and the relative chances of the player getting lost along the way the actual move begins. The player starts out in one of six directions and either moves only or combines his/her movement with other ACTIVITY STATES as allowed by the limitations of the chosen MOVEMENT ACTIVITY STATE. The game operator makes die rolls along the way to determine wether the player gets lost or has an encounter and describes the nature of the terrain through which the player is passing. The move continues until the predetermined or estimated end of the move unless the player signals a stop, the game operator indicates that an encounter is taking place, or some intervention of the environment such as a barrier blocks the way or a road is discovered prompts the player to consider new possibilities of movement. If the player ends his/her movement for any reason before s/he has paid the full cost in time for entering a hex the movement ACTIVITY STATE, A.P. costs already paid if the cannot be rebated to the player, and time required to complete the move into the hex are recorded on a piece of paper so that they are included in the calculations when the player next moves. If several players or characters are all moving cardboard counters reresenting the MOVEMENT ACTIVITY STATE and time remaining to be expended may be placed on the marker representing the player.

Though this movement appears complicated and difficult to understand and follow at first glance it is actually almost exactly the way movement is conducted in real life, and as such is already understood and used by the game operator and the players in everyday life.

The decision how fast you will walk is predicated on what you are going to do while you are walking, and this is reflected in the limitations on the ACTIVITY STATES which may be combined with the different MOVEMENT ACTIVITY STATES, basically enforcing the common sense dictum "the faster you hurry the less time you have to notice your surroundings or engage in other activities". The choice of direction is also an inherited one if you already know where you are going, but it must be consciously made if you are going to travel across unknown land. Often the direction will be a compass heading or into, away from, or perpundicular to the sun. This is reflected in the players statement as to the proposed route s/he will follow. The estimated limit or end to the movement simply reflects the fact that very few people start out walking with know idea of when they will stop. Rather they plan on stopping when the reach their destination, when they grow tired, when they find a certain object ot position, or when the conditions for traveling change such as the fall of night or the beginning of a thunder storm. The rules which indicate wether or not the individual becomes lost are simply a reflection of the recurrent possibility that in walking you will lose your way, and the game operator determines the lost results and rules because the player will not always know that s/he is lost or has left his/her proposed route until much time has passed. This is also simply a reflection of the natural progression of events in the real world. The opportunity for the player to stop along the way is self evident, and the sense of movement being interrupted by unusual or unexpected events such as encounters stands to reason. Looked at in this manner I hope that the movement rules makes more sense.

2.15.2 The TRAIL BREAKING effects on movement are computed by calculating the average TRAIL BREAKING multiplier for the path traveled by the individual. This is easily done if the route traveled by the player is all of the same TRAIL BREAKING cost, but if the multipliers vary from hex to hex or from hex to hexside the following method may be used. Add all of the multipliers together and divid by the total number of multipliers (number of hexes or hex sides or both the player has crossed). This will yeild the average,and if the number is a fractio it should rounded to the nearest whole number if using the basic rules or the nearest tenth if using the advanced rules and multiplied by the ACTIVITY STATE costs associated with the type of movement chosen by the player. If more than one type of movement rate is used by the player is is best to compute the cost for each different movement segment and then add all of the costs together to determine the total cost of the movement.

2.15.3 The trail and road have effects of reducing the total movement cost by one half and one fourth respectively. These values are of questionable validity for individuals on foot and the game operator is urged to use descretion in allowing players the benifits for them. Much safer and more realistic would be to simply negate all terrain related TRAIL BREAKING MULTIPLIERS greater than one as long as the player travels along the path or road. I leave this in the hands of the individual game operators, however.

1.15.4 The lost rules are simple and straight forward. A player risks being lost and traveling in a random direction determined by a six sided dice every time s/he enters a hex containing a positive chance of being lost. The chances of being lost are additive, so if the hex is both a vegetation, wooded, and fertile/abundant the player has a cummulative 100% chance of being lost. Balanced against this are the ENABLERS, if any, possessed by the player and a possible die roll modifier based on the players prior knowledge and experience in that particular hexagon. This prior knowledge will have to be determined by the game operator using what ever information is available to him/her concerning the previous times the individual has traveled into or through the hex.

The effects of being lost are equally straight forward. If the individual becomes lost the game operator rolls a six sided die and moves the player in that direction instead of in the direction desired by the player. Of course if the die indicates that the player should move up a cliff, across a river, into a mountain, or any other unlikely aspect or direction the player is considered to have moved sufficiantly far to find out about the problem and recognize that s/he is lost. Of course s/he will still be inside the hex that s/he was lost in and I usually allow the player to return to the position s/he had occupied prior to moving and becoming lost. This means that the effect of being lost was the loss of time which aould have been spent traveling in the proper direction. This is alright with me because I take no particular pleasure in watching the players wander around in the wilderness and this happens often enough without my needing to cause the maximum possible confusion with every lost result.

1.15.5 The rules discribing FORAGING, HUNTIN AND GATHERING, and other interesting factors mentioned on page 86 are mentioned and described in the FLORA AND FAUNA SUB-SECTION on the opposite page. They were included on the page 86 primarily to save space.

1.15.6 Unlike many other games in which a hexagonal grid is used to regulate movement the LEGACY game permits movement both into and through hexes and into and through hes sides. Hex sides may either be crossed or may be moved along. This is especially handy when moving along a beach in from of a dense jungle or when following a river or ridge which passes through costly terrain. The game operator may have to exert his/her abilities of common sense on occasion as one of the unforseen aspects of moving along hex sides occurs. An example is the player who routinely changes from hex to hex side in moving across an area of terrain. It is possible though not easy to manufacture a movement bonus by doing this and the game operator should prevent players from manipulating this flaw in the movement system by preventing them from transfering from hex to hex side when there is no difference in TRAIL BREAKING MULTIPLIER between that route and and alternate route which consists only of hexes or hex sides.

1.15.7 The additional cost indicator is used whenever there is an effect on movement within the hex which may not be described accurately by any of the other symbols or colors listed on page 86. When used the additional movement point cost triangle should contain either the special TRAIL BREAKING MULTIPLIER or a letter associated with an instruction or rule listed elsewhere which is used to determine the effect of passing through the hex on the movement costs to the player.

1.15.8 Altitudes are expressed in levels of 100 meters. The lack of any altitude indicates from sea level to 99 meters while other altitudes may be multiplied by 100 to obtain the heigth in meters.

2.21 FLORA AND FAUNA

The abilities and characteristics of living organisms other than the Human and Keya-Teu sentient species are simulated by the flora and fauna rules. The primary mechanism of the FLORA AND FAUNA rules are the FLORA AND FAUNA CARDS which describe the different organisms and their characteristics.

2.21.1 FLORA AND FAUNA CARDS are green and can be identified by the picture of a plant or animal on the front. This fron picture is also accompianied by a scale indicating the relative size of the organism in appropriate units of measurement. The pictures are drawn to an individual scale level represented by the scale printed along the side of th card and are not in scale to each other or to any other component or rule of the LEGACY game.

2.21.2 The first pice of information on the back of the card is the name of the organism. This is usually expressed as both a proper name in capital letters and a common or knick name in paranthesis.

2.12.3 The second piece of information is a description of the habitat in which the organism may usually be found. This may include specific scale levels, terrain types, climate conditions, or other types of determining factors as explained on the card itself.

2.12.4 The next piece of information applies to limitations, if any, to the altitude, moisture, and temperature which the organism is able to live in. If any one of these limitations is violated or exceeded damage or death will result to the organism.

2.12.5 The NEXT piece of information contained on the card applies to the organisms Biological characteristics. These are expressed in the categories; BIO-ABUNDANCE, BIO-COMPLEXITY, BIO-COMPETITIVENESS, GROWTH RATE, and DECAY RATE. Together these information categories discribe nearly everything that must be known about an organism. the effects of various levels in the BIO categories are listed below.

BIO-ABUNDANCE is a reflection of the percentage chance of encountering one or more of the organisms under the conditions of it's own environment if the individual is non-interactive and waits for a period of one day. The chances of encountering the organism in a shorter period is correspondingly smaller unless some outside influence modifies the die roll.

BIO-COMPLEXITY is an evaluation of the level of evolutionary development the organism has obtained. Evolution rules are not included in this rules booklet, but the game operator may design some if s/he desires.

BIO-COMPETITIVENESS is a reflection of the percentage chance of the organism threatening the ecological niche filled by other organisms such as the player. The possible targets of this competitiveness are defined by the vorious tendencies of the organism as defined below.

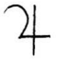
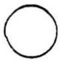
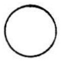
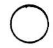
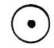
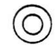
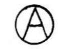
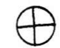
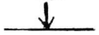
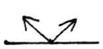
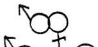
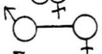
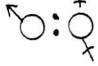
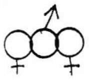
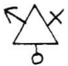
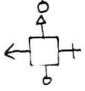
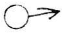
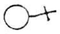
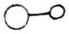
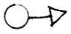
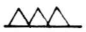
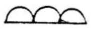
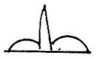
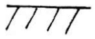
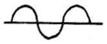
GROWTH RATE is the indicator of how long it takes the organism to attain full growth or maturity. This does not apply in the same way to all organisms and modifications to the meaning of this bio-statistic may be included.

DECAY RATE is the same for living organisms as it is for ARTIFACT ENABLERS as described on the DECAY RATE TABLE on page 63.

Either the growth or decay rate may result in the reduction of the size, danger, and yeild of the organism by a fixed percentage. The game operator must actualize this percentage reduction from the values of a full grown and healthy organism as best s/he may given the other information included on the card about the organism.

2.12.6 Symbols are used on the FLORA AND FAUNA CARDS to indicate the target preferences and reproductive characteristics of the organism. This symbols are listed and defined below and on the following pages.

SYMBOL	DEFINITION AND EFFECTS
①	Recurring, done, or performed every year. Living and growing for only one year or one season. Meaning depends on where the symbol appears on the card.
②	Having a normal life cycle of two years, happening every second year. Meaning dependent on position on card.

SYMBOL	DEFINITION AND EFFECTS
	Lasting or active through the year or through many years. Appearing again and again, continually recurring. Specific meaning dependent on the position on card.
	Lastingor occuring at a ten year interval or cycle. Meaning dependent on the position on the card.
	Occuring in a 100 year interval or cycle. Meaning dependent on the position on the card.
	Special occurence which must be determined by the game operator.
	Dependent on the suns energy and radiation for survival
	Dependent on the presence of an aquatic environment for survival
	Dependendent on an atmosphere for continued survival.
	Sedimentic or dependent on placement in the soil or ground.
	The organism is rooted to a perticular spot and may not move.
	The organism may move around at the indicated rate.
	Having only one sex or one type of sexual organ.
	Having both male and female sexual organs on the same organism.
	Having male and female sexual organs on seperate organisms.
	Having both both hermaphroditic and unisexual sexual organs on the same organism. Implies the ability to engage in self fertilization in a variety of strange combinations.
	Tri-sexual indicating that the organism requires three sexes to reproduce.
	Quadrisexual indicating that the organism requires four sexes to reproduce.
	Indicates a male organism.
	Indicates a female organism
	Indicates a third sex organism
	Indicates a fourth sex organism
	Indicates that the competitiveness of the organism is directed only against FAUNA.
	Indicates that the competitiveness of the organism is directed only against FLORA.
	Indicates that the competitiveness of the organism is directed against both FLORA and FAUNA.
	Indicates that the competitiveness of the organism is directed only against the minerals and nutrients contained in the soil.
	Indicates that the competitiveness of the organism is directed only against inert or nonliving organic matter.

The position of these symbols on the FLORA AND FAUNA CARD often indicates the specific nature of the effect or meaning of the symbol. Additionally they can modify each other, for example the Annual symbol occuring with the mobile symbol would indicate that the organism is only mobile for a certain period of the year.

2.12.7 The nutrition which may be derived from the organism is listed under the heading YEILD. No specific nutrition requirements are specified in the LEGACY rules, so if the game operator wishes to implement them s/he should design a set of rules relating to nutrition defficiencies, hunting, and nutritional value. I just insisted that players spend time hunting, gathering, and cultivating until they achieved a certain success rather than simulate and design tables for the precise value of the various foods. It is in the hands of the game operator as to wether this area will be explored further, but I recommend the following abstract system as being much simplier and easier as well as not consuming to much time.

The food which an individual must eat in one day in order to maintain his/her METABOLIC STATUS is equal to 1 ration. Rations are automatically ingested as a part of the automatic LIFE SUPPORT ACTIVITY STATE unless the players indicate otherwise in specific instructions to the game operator.

Failure to recieve 1 days rations will cause an automatic FATIGUE LEVEL 1. Failure to recive rations for a second day will trigger a drop of one level of METABOLIC STATUS and 2 CONCENTRATION FACTORS. Failure to recieve a ration for the third day will trigger a decrease of one CONSTITUTION LEVEL and 1 more CONCENTRATION FACTOR. Each subsequent two day period in which the individual fails to recieve a ration will cause a reduction of one METABOLIC STATUS level until the METABOLIC STATUS reaches 1. At this point each 2 day period in which the individual fails to recieve a ration will result in the reduction of one CONSTITUTION LEVEL until the individual finally dies.

Rations may be obtained by hunting and gathering, cultivation, or herding of animals. If cultivation and herding are to be relied upon for an extended period of time food preservation and harvesting methods will also have to be employed. The following table indicates the balance between the number of HUNTING AND GATHERING factors and the type of terrain hunted and gathered. The game operator may want to expand this table to reflect the passage of seasons or the depletion of the land.

TERRAIN TYPE	HUNTING AND GATHERING FACTORS								
	1	2	3	4	5-6	7-9	10-14	15-20	21+
DESERT, BARREN	+0	+0	+0	+0	+1	+2	+3	+4	+5
LIGHT VEGETATION	+0	+0	+1	+2	+5	+10	+15	+18	+20
MEDIUM VEGETATION	+0	+1	+3	+6	+10	+15	+20	+23	+25
HEAVY VEGETATION	+1	+5	+10	+15	+25	+40	+60	+70	+75
FERTILE ABUNDANT	+10	+15	+25	+40	+60	+80	+90	+95	+99
ROUGH	+0	+0	+1	+5	+10	+15	+10	+10	+10
BROKEN	+1	+3	+5	+10	+5	+5	+5	+5	+5

These die roll modifiers are added to the basic chance of finding food or having a successful hunt listed on the table on page 86. The final question to be answered in this rough but ready simulation of the food aquisition process is the amount or quantity of yield of the hunt. I determine this on the same table used to calculate the yield from cultivation and herding as indicated below.

TIME INVESTED (die roll if hunting and gathering.)	CONDITIONS (weather if cultivation, preditors and disease if herding, a seasonal or depletion related value if hunting and gathering as explained on the next page.)					
	LOUSY	VERY POOR	POOR	GOOD	BETTER	IDEAL
1-10 days	x	x	x	x	1 ration	2 rations
11-30 days	x	x	1 ration	3 rations	5 rations	10 rations
31-60 days	2 rations	5 rations	10 rations	25 rations	40 rations	70 rations
61-90 days	5 rations	10 rations	40 rations	50 rations	75 rations	100 rations
91-150 days	8 rations	30 rations	70 rations	100 rations	150 rations	300 rations
151+ days	10 rations	50 rations	100 rations	200 rations	300 rations	500 rations

The indicated number of rations should be divided by 10 to indicate the yeild obtained by hunting. Depending on the variable conditions of wether, pests, preditors, and disease I require any where from 2 to 10 cultivation factors per day for each day that the land is under cultivation for each 10000 square meters of land farmed. The herding factors are around 4 per day for each day in which the hypothetical animals are being domesticated and cared for.

The fundimental problem with all of these seemingly unrelated or thrown together rules and tables is that even though they work and provide the kinds of rations required by groups of people like tribes if they are lucky and are able to store some of the rations aquired the whole thing cannot be tied in very closely or properly with the rest of the LEGACY game system without about another fifty pages of rules which do not fit well into what is in this rules booklet without still other rules not included. In order to make the whole hunting, gathering, herding, and cultivating thing work without these rules it must be set up and run arbritrarily using a lot of die rolls and interpretation and determination from the game operator. I apoligize for this inconsistency in the avowed priciples of the LEGACY system but it was either that or leave the whole thing out completely. I leave this option open to game operators who would rather simply not deal with it, but for those of you who want to be able to simulate these important aspects of the aquisition and disemination of nutrition several rules of thumb are included below which are intended to be used wit the tables on pages 86 and 91. Additionally you will find that the copies of the tables located in the collected tables SECTION are more compact and clearer for reasons which are confusing at best.

The more a group hunts in an area the poorer it's condition will be as represented by a step by step reduction in the condition of a given area in which the group is hunting. This reduction should reflect both the amount of time which the area is hunted and the intensity or number of hunting and gathering factors which are used to hunt it.

The area farmed using the cultivation rules is a hex 100 meters across or the IOTA scale level hex. Areas larger or smaller than this may be obtained by multiplying the requirements and inputs on the table by different values. If you are going to do this it is essential to take a calculator or fast pencil and work through the results several different directions to make sure that you aren't building a cultivation loophole big enough to drive a truck through.

The herding represented here reflects a hypothetical animal or animals of unknown characteristics. If a specific animal is named by the players as their choice for domestication and a series of information is generated concerning that particular animal the whole herding game system can be created and then tightened down into something which both acts and looks like a reality. This is true of the cultivation game system as well. If the players pick one or two specific crops the chances of honing the tables and rules concerning it improve dramitically. In the final analysis any tables which are to be of more than passing value to the game must be designed by the game operator and reflect the specific characteristics of his/her environment.

2.12.8 The water needs of players are more acute and more easily simulated. The percentages losted on page 86under water reflect the chances for finding water in those various terrain types. Like HUNTING AND GATHERING and the chances of being lost different terrain types combined in the same hex add to each others percentage chances. The table below reflects the effects of being without water.

	CONSTITUTION LEVEL OF THE INDIVIDUAL				
TIME ELAPSED	EXTREMELY POOR	POOR	AVERAGE	GOOD	EXCEPTIONAL
1 day	-2	-1	-	-	-
2 days	-3	-1	-1	-	-
3 days	death	-1	-1	-1	-1
4 days	still death	-3	-2	-2	-1
5 days	more death	death	-3	-2	-2
6 days	additional death	death	death	death	-5
7 days	there is nothing but death all the way across the board, death				

NOTE: the advanced CONSTITUTION rules should be used when extensive effects to t METABOLIC STATUS occur like this as the effects are manifested powerfully in the number of ACTIVITY POINTS AVAILABLE to the individual.

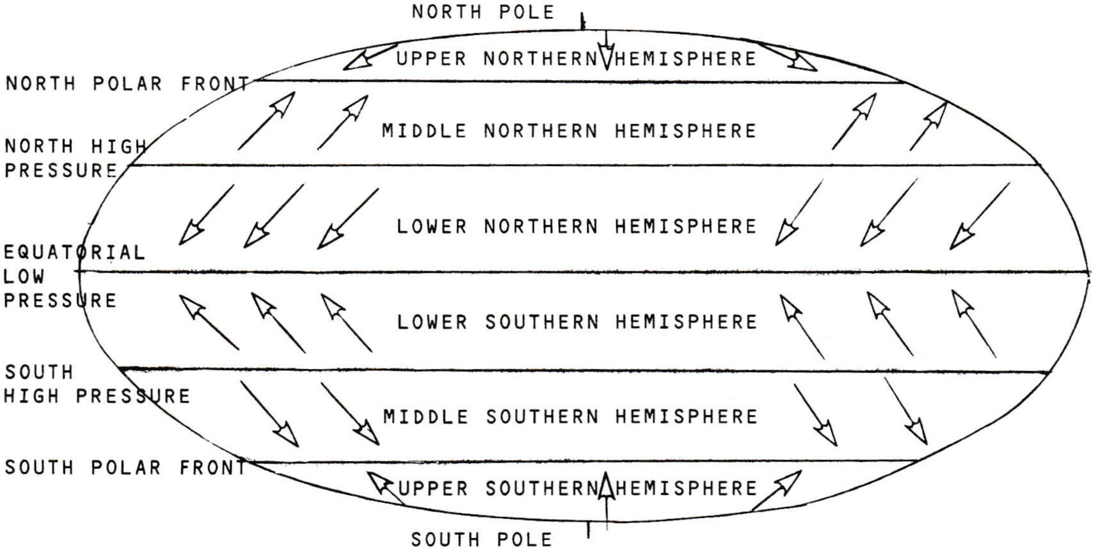
2.12.9 If not specified on the FLORA AND FAUNA CARD an organism has a basic 10% attack attempt to injure the player and a basic 70% activity die rollchance of being adversly effected by the player.

2.21 WIND INTENISTY

The overall behavior of the movements of the atmosphere called wind may be charted be examining the overall effects of the planets motion and the natural patterns of atmospheric circulation which shape it'd prevailing winds and climactic zones.

2.21.1 The surface of the planet is divided into six broad zones in which the wind direction is relatively constant or prevailing and seven narrow bands in which the wind is continually shifting in intensity and direction called fronts. The map below indicates the location and direction of these prevailing wind zones and front bands of unpredictable weather.

ATMOSPHERIC WIND ZONES AND PRESSURE BANDS


NORTH POLE
UPPER NORTHERN HEMISPHERE
NORTH POLAR FRONT
MIDDLE NORTHERN HEMISPHERE
NORTH HIGH PRESSURE
LOWER NORTHERN HEMISPHERE
EQUATORIAL LOW PRESSURE
LOWER SOUTHERN HEMISPHERE
SOUTH HIGH PRESSURE
MIDDLE SOUTHERN HEMISPHERE
SOUTH POLAR FRONT
UPPER SOUTHERN HEMISPHERE
SOUTH POLE

In the diagram above HEMISPHERE designates a wind zone, while poles, fronts, and pressures designate pressure bands.

2.21.2 General atmospheric circulation can be described in the following manner; As heated air rises at the equator it is deflected by the CORIOLIS effect caused by the spinning of the plane and becomes an eastbound wind moving towards the pole of the planet. As the air mass moves further away from the equator and higher into the atmosphere it's heat is lost through radiation into space and the air mass becomes denser, sinking baxk towards the planets surface on or about 30 degrees latitude. This sinking air forms a high pressure band as it sinks and flows back towards the equator along the surface of the planet and is again deflected by the CORIOLIS effect to form the prevailing winds or "trade winds which blow steadily towards the west in the lower northern and lower southern hemispgere zones. Some of the atmosphere continues poleward as it sinks towards earth at the North high pressure zone and moves closer to the pole until it reaches the north polar front. These winds form the east bound or "prevailing Westerlies" of the middle northern and middle southern hemispheric zones.

Over the polar regions, where there is little or no solar radiation during most of the year the atmosphere also cools and sinks towards the planets surface forming the polar west bound winds after CORIOLIS deflection. Due to the low temperature and high density of this air mass these polar winds form a dense, thin layer which stays relatively close to the ground. Neither the polar or prevailing east bound winds are as consistent as the Trade winds of the equator, lacking as they due the benifits of the Hadely cell effect, but they do represent continuing trends in the wind direction and characteristics. The combat zone known as the polar front represents the low pressure band where the poleward eastbound winds and the equator bound, cold, dense west bound wind meet and smash into each other forming a variety of spectacular and violent types of weather. This may be considered the most climactically variable area of a planets surface, and also posseses an unpredictability which has long been the bane of weathermen. The polar front of the planet Earth shifts north and south by about 3,000 kilometers depending on the season. Th colder the pole the more cold air flows towards the equator and the larger the upper hemisphere zone while the warmer the pole the less ait flowing equatorward and the smaller the upper hemisphere zone.

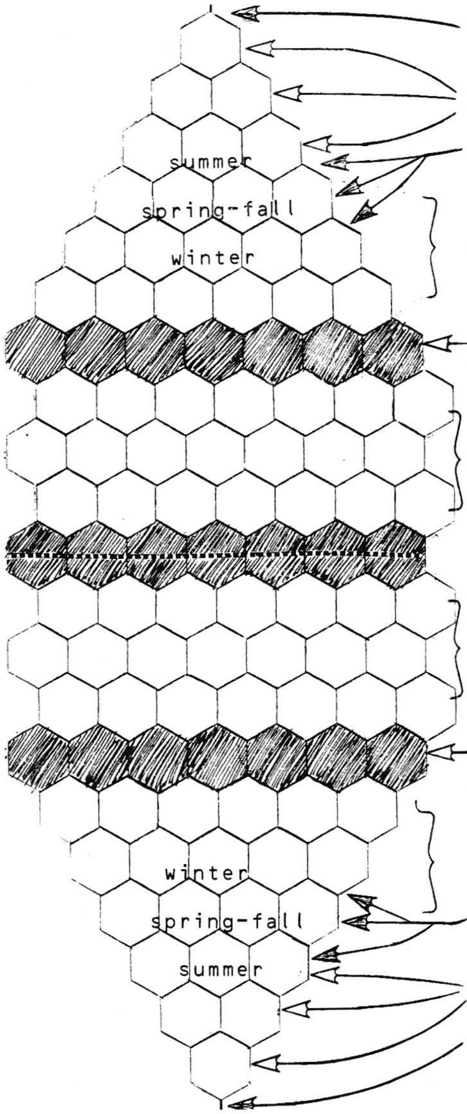
These relative percentages of wind behavior are reflected on the table located below.

WIND DIRECTION AND INTENSITY

LOCATION ON PLANETS SURFACE - pressure		northwest	West	Southwest	Southeast	East	Northeast
Pole	high	1-10 / -3	11-20 / -1	21-70 / +1	71-80 / -2	81-90 / -3	91-100 / -5
Polar front	high/low	1-15 / +2	16-30 / +3	31-50 / +5	51-70 / +4	71-85 / +3	86-100 / +1
Middle Hemisphere South		1-10 / -3	11-20 /-3	21-30 / -5	31-40 / -1	41-50 / -2	51-100 / +1
North	pressure high	1-10 / +1	11-20 / +2	21-45 / +3	46-55 / +1	56-65 / +2	66-100 / +3
Lower North hemisphere		1-5 / -2	6-10 / +1	11-85 / +3	86-90 / -2	91-95 / -1	96-100 / -3
Lower South hemisphere		1-75 / +3	76-80 / +1	81-85 / -1	86-90 / -3	91-95 / -1	96-100 / -2
EQUATOR	very low	1-30 / -1	31-40 / -5	41-70 / -1	71-80 / -5	81-90 / -5	91-100 / -5

The results before the slash indicate the percentage chance of that particular wind direction being the current one, in other words if you are on the middle hemisphere , either North or South, and rolled a 23 this would indicate a wind moving in a Southwesterly direction or from out of the Northeast. The modifier which comes after the slash represents the additions or subtractions to a six sided die roll which indicates the wind intensity at any particular moment.

2.21.3 The specific location of the various climactic zones and fronts in terms of the planetary mapping section and the symbols used to indicate different weather and climactic events are listed below and described on the following page.



NORTH POLAR CAP - Typically a high pressure center. Dense, cold air sinks to the planets surface and flows southward.

UPPER NORTHERN HEMISPHERE - Wind direction towards the southwest, POLAR SOUTHWEST.

NORTHERN POLAR FRONT - Violent interface between cold polar and warmer southern winds. Position varies with season.

MIDDLE NORTHERN HEMISPHERE - Wind direction varies depending on pressure, humidity, and temperature. Typically wind direction towards the northeast, NORTHEAST.

NORTHERN HIGH PRESSURE BAND - Dense air sinks to the planets surface and flows towards the pole and towards the equator.

LOWER NORTHERN HEMISPHERE - Wind direction consistently towards the southwest, the SOUTHWEST TRADE WINDS.

EQUATORIAL LOW PRESSURE BAND - Heated air rises and travels towards the northern and southern high pressure bands.

LOWER SOUTHERN HEMISPHERE - Wind direction consistently towards the northwest, the NORTHWEST TRADE WINDS.

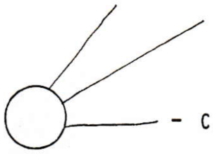
SOUTHERN HIGH PRESSURE BAND - Dense air sinks to the planets surface and flows towards the pole and towards the equator.

MIDDLE SOUTHERN HEMISPHERE - Wind direction varies depending on pressure, humidity, and temperature. Typically wind direction towards the northeast, NORTHEAST.

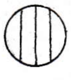
SOUTHERN POLAR FRONT - Violent interface between cold polar and warmer southern winds. Position varies with season.

UPPER SOUTHERN HEMISPHERE - Wind direction towards the northwest, POLAR NORTHWEST.

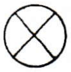
SOUTH POLAR CAP - Typically a high pressure center. Dense, cold air sinks to the planets surface and flows southward.



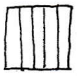
- COMET: represents meteor showers, point of impact of a meteor,and other phenomena related to the existence and effects of debri falling from space Effects varydepending on the event, renging from no effect to the restructuring of the planets surface.



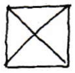
- RAIN: represents the parcipitation of moisture or other fluids from the sky onto the ground. May cause a x2 effect on movement and will influence the cultivation results and general health of the ecosystem.



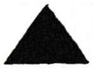
- SNOW: represents rain which falls at a time when the temperature is so low that it forms light flakey crystals which tend to remain on the ground for extended periods of time. May cause a x2 or x3 effect on movement and reduces visibility and hearing range to nearly zero while falling.



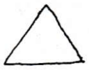
- FLOOD: represents the effects of to much rain or the dam breaking. Indicates that the area is inundated by water and travel through lower altitudes may result in a x2, x3, x4, x5, or manditory mater travel ENABLER effect on movement.



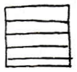
- SNOW ON GROUND: represents snow which has been on the ground for some time, results in a x2 effect on movement unless negated by snow travel ENABLERS.



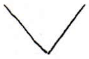
- HAIL: represents rain which has frozen into large balls of ice high in the clouds. May cause damage to property and injury to characters.



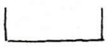
- SLEET: represents rain that has partially frozen. Effects, if any basically the same as rain.



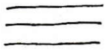
- ICE ON GROUND: represents a layer of ice on the ground which may or may not effect movement.



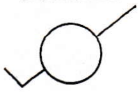
- FROSTWORK: represents the border or limit to which frost has effected an area. Flora within the effected may be damaged or destroyed by the effects of frost if it occurs out of season. Indicates below freezing temperatures within the effected area.



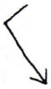
- HOARFROST: represents the freezing of dew on plants and other surfaces. Not only a hazard because of the slippertness of the ground but a killer of both flora and fauna if severe enough.



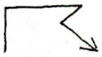
- FOG: represents moisture suspended in the atmosphere obscuring visibility. Increases cnances of being lost on any terrain type but roads by 100%



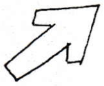
- HAZE, DUST, SMOKE: represents other factors obscuring visibility and increasing the percentage chance of getting lost.



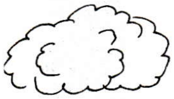
- SHEET LIGHTENING: A sheetlike illumination caused by lightening reflected and diffused by clouds, fog, and the like. Increases visibility at night.



- THUNDER STORM: represents a combination of rain and lightening which may result in damage to property and injuries to players. Basic 000% chance of lightening striking anything significant in the game in each 10 unit (15 minutes) period of time. Chances of striking may be increased due to the effects of storm severity, foolishness on the part of players or nonplayers, ans the effects of INTENTIONALITY.



- WIND: indicates the direction and intensity of the prevailing wind. Is subject to change at any time.



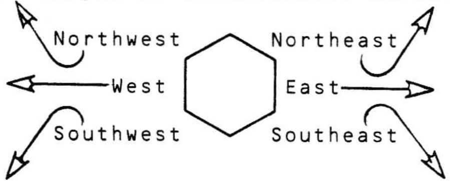
- CLOUD: represents a cloud cover obscuring the visibility of stars, etc. and a reduction in the amount of light striking an area. Is automatically considered to be a part of the rain, thunder storm, sleet, snow, and often hail weather types.

The game operator must determine with what frequency and severity these various types of weather occur within the game environment. When I run a game I prefer to be surrounded by powerful natural forces in action, so I take a planetary information sheet and mark the location of high and low pressure centers, storm fronts, and the like on it. Percentile dice and the pattern of prevailing winds listed on the preceeding pages are then used to determine when and where these weather types

2.21.4 The gusting temporary changes in wind direction which occur so frequently in real life can be simualted quite easily by rolling a six or ten sided die and consulting the table below. The table may be consulted as often as desired by the game operator, though I recommend that some regular period of time be used to avoid any unfairness or discrepencies in the administeration of the weather rules. The time limit associated with the change represent whatever period of time the game operator is using to check for wind ghanges. If the game operator chaecked every 10 units than the duration of the change in the wind direction would last of one unit. If the game operator was checking for wind changes every 100 units than the change would last for as few as 10 units or as many as forty units. This can be expressed in terms of a percentage reduction in the amount of work the wind performs for windmills.

DIE ROLL	CHANGE IN DIRECTION	DURATION OF CHANGE
1	one counterclockwise	1 time period
2	one clockwise	1 time period
3	one counterclockwise	2 time periods
4	one clockwise	2 time periods
5	two counterclockwise	1 time period
6	two clockwise	1 time period
7	three counterclockwise	1 time period
8	three clockwise	1 time period
9	two counterclockwise	4 time periods
10	two counterclockwise	4 time periods

In the LEGACY game system wind direction is measured in terms of the six sides of the hexagon as demonstrated below.



Knowing the prevailing or expected wind direction for each specific location on the planets surface is one important input when determining wind direction for a specific period of time or for a specific location. A second important peice of information to consider is the positioning of temporary and/or permenent low and high pressure centers.

Four (4) permenent high pressure bands or areas of high pressure centers have been identified on the proceeding pages, the north and south polar caps and the northern and southern high pressure bands. Note that all of these high pressure areas share a common characteristic, in each cold, dense air is sinking towards the planets surface and flowing outwards or away from the high pressure center. From this fact we can derive a general rule, that high pressure centers will tend to form over or near cold areas or areas conducive to cooling and increasing the density of air masses, and that winds will tend to blow away from a high pressure center.

One (1) permenent low pressure band or area has been identified on the preceeding pages, the equatorial low pressure band. Both the north and south polar fronts aften act as other low pressure bands. These low pressure areas can be characterized as locations towards which air flows, becomes heated and subsequently less dense and rises higher into the atmosphere. In the case of the polar fronts the colder polar air remains close to the planets surface, forcing the warmer winds blowing from the equator higher into the atmosphere. From these facts we can derive a general rule for low pressure centers, that low pressure centers will tend to form over or near warm areas or where air is being forced upwards away from the planets surface, and that winds will tend to blow towards a low pressure center.

A major factor affecting the locations of high and low pressure centers other than the pressure bands discribed above and on the preceeding pages are the locations and positions of land and water masses. Land, soil, rock, vegetation, and the like posesses nignificantly diffrent temperature characteristics than does water. A given area of land requires three to five times less increase or reduction of energy to change it's temperature. The effect of this is that in cold weather the land masses will be colder, increasing the tendency towards high pressure centers, while a large body of water will be warmer, losing it's heat energy slower and increasing the likelyhood of the formation of low pressure centers. This would be reversed during warm weather, with land masses being warmer and associated with low pressure centers and water masses associated with high pressure centers.

One of the best ways I know of to randomly determine the location of high and low pressure centers and to determine the specific locations of storms and other types of weather effects within or close to a pressure center is to use the clear plastic target overlay in the following manner;

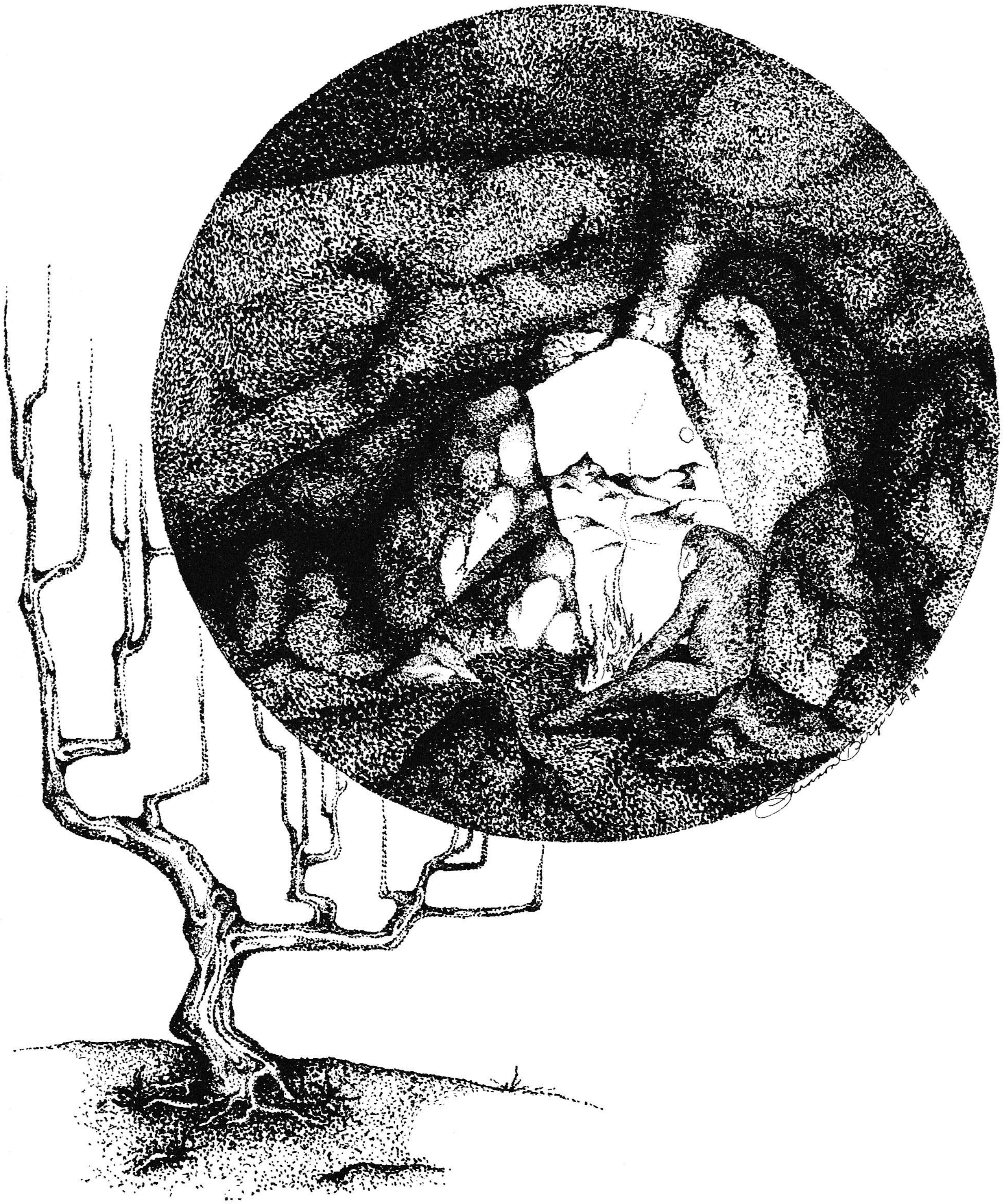
First the target overlay is placed over the map of a planetary section, or even a MODULAR TERRAIN MAPPING HEX in the case of detailed weather location. The center or target hex is placed either in the center of the land mass in the section or the water mass, depending on which is warmer as determined by the explanation on page 96. if any high pressure bands exist within the MODULAR TERRAIN MAPPING HEX the center of the target overlay is moved away from them by about one hex for every 20 hexes of either land or water, whichever is warmer. A minimum motion of 2 hexes of movement should be made regardless. In the case of a planetary mapping section the target overlay should be moved away from any high pressure bands and towards any low pressure bans such as the poles and the equator. the extent of this move should never exceed three hexes, but otherwise is left up to the discretion of the game operator. The percentile dice are now rolled, and die roll modifiers representing the differential in temperature between the land and water areas may be included (higher modifiers for larger diferencies in temperature). The result of the die roll plus the die roll modifiers indicate the location of a low pressure center. This can be done as many as three times for a planetary mapping section and as often as twice for a MODULAR TERRAIN MAPPING HEX. High pressure centers may be located in the same way, though they are not quite as useful for determining weather patterns as are low pressure centers. The strong winds, storms, and other types of weather happening on that section or hex will tend to concentrate around the low pressure center, and the target overlay may be used again to locate specific storm centers, cloud covers, and the like. It is up to the game operator wether or not s/he will determine high and low pressure centers and then keep track of their movements across the surface of the planet or wether s/he will use the target overlay frequently to determine the pattern and location of weather for the planet.

2.21.5 The number of land versus the number of water hexes for an area of the planet is critical information for determining the amount of rainfall that the planet will recieve. The distribution of the rainfall tends to be towards the high pressure bands, while rainfall tends to be scarcer between the bands, but the amount of rain the planet has will be determined by the ratio of land to water. A single hex requires roughly 1 hexes worth of rainfall in order to be self supporting of vegetation, and lush, heavy, fertile abundant and other types of vegetation require even more. If the ratio of Earth's land to water is 1 to 4 then the number of hexes of water evaporating from the oceans of the planet each year is enough to allow about 4 hexes worth of rain to fall on each land hex each 100 days if all of the water evaporated at sea rained on the land. It doesn't, and dividing 4 hexes into 5 parts yeilds about 4/5ths of a hex of rain per 100 days per hex on the planet. This is just below the minimum required to maintain vegetation on the planets surface, and clearly some factors must be at work to concentrate it in certain areas while depriving other areas. One of these factors is the location of high and low pressure centers described above, while another is the tendency for a double belt of land straddling the equator to be diprived of it's fair share of the rain, creating deserts. This ratio and the distribution of water should be considered carefully by the game operator when operating a planets weather and climate.

I recommend that the game operator get him/herself a good atlas and sit down and study the maps showing the distribution of temperature, pressure, rainfall, humidity, ocean currents, wind currents, and the like carefully in order to have a better understanding of the processes by which a planetary eco-system replenishes itself than I can hope to give in these few pages.

2.21.6 Their exist systems of local winds and tropical storms which are unique to certain areas and types of geological formations that the game operator must determine and construct for him/herself. Once more the atlas is invaluable in familiarizing youself with the locations and characteristics of these types of weather, and information generated from the atlas or by the game operator should be sued to condtruct tables showing the chances of these types of storms and currents effecting the course of play of the game. Prevailing winds of a local nature of interest if players either fly or sail, and the presence of hurricanes, tornadoes, typhons and the like are of interest to anyone living on or near on of the areas to which the make their way.

AREAS directly underneath the high pressure bands tend to recive massive rainfails, and the two bands nearest the equator are the locations for the monsoons, torrential rains accomianied by flooding and other problems which occur seasonally like clockwork. The only question is how intense are they they going to be this time.



2.31 WAITING FOR GODOT

Rather than give you a commercial to buy a game that has not and may not ever be published I am going to include in this section two examples of planets described using the GEOSPHERIC rules from the EMPIRE OF THE RISING SUN playtest and let the individual game operators decide to what extent they want to bother with it. I personally feel that the careful chronicaling of a planets geological and biological history is one of the major forces determining wether or not the planet you create is logical, internally consistent, and hangs together well enough for the players adn the game operator to believe in ti and want to live there.

2.31.1 The information requested on the front of the PLANETARY INFORMATION SHEET is largely either self explainitory or described on page 78, but a few of the unique or unusual features of this information is discussed below.

The tilt of the planets axis is what is responsible for seasons. From the examples it is easy to see that Skye-Aa has more severe seasons than does Earth, and that in addition the degree of tilt for the planet Skye-Aa is increasing over time. This is an unheard of type of event for planetary bodies, for the amount of energy required to move a planet even the smallest degree is collosal. Additionally the Keya-Teu planets axis is tilting fast enough so that the passage of a few thousand years has already made a difference in the seasons and the characteristics of the planets climate and weather that are profound to say the least. The Skye-Aa wobble is also increasing, and both of these unusual features are the result of a massive meteor/planetoid that crashed into the planet near the pole and nearly destroyed the planet in the process. Severe geological and biological effects of this impact are still experienced today. Thepassage of additional thousands of years will result in an even greater variation between seasons and an increased wooble that will soon make the planet look like a drunkard staggering down the street to any visitor from space.

The various resources listed at the bottom of the sheet relate to an interesting ans proven game system which is also not included in this rules booklet. However, they general thrust of the information contained there should be obviaus to anyone who takes the time to study it. Earth Humans developed a technology centered around science and the use of resources such as mineralization because it was readily accessable and waiting to be used. The Skye-Aa Keya-Teu did not develope a science oriented technology because they effectively have no mineralization. The accessability values for what little they do have are so poor that it might as well not be there for all the good it is going to do them. If the Keya-Teu ever hope to develope the trappings of advanced culture and civilization they will have to go about iot in a substantially different way then did the Humans.

The biological information indicates the general characteristics of a planetary ecosystem, and a quick comparison of the two will show that the two planets are very similiar in terms of the evolutionary adaptions and solutions that the ecologies found to cope with the continuing processes of livin The triple zero biological complexity represent the one in one thousand chance that exists that any given planet within the habitable zone of a star, containing either an oxygen - nitrogen or other similar atmosphere and a carbon cycle climate will have evolved a sentient species by the time that the p-aenet is visited by explorers. This is part of the planetary exploration game system which will be included in the nex LEGACY game system booklet if it is published at all.

The planetary resource classes are, CLASS I: Common or basic types of metals and mineralization such as required for copper, bronze, and iron ages. CLASS II: more advanced and often more rare types of metals, mineralization and rare earths which are required for the type of industrial revolution the Earth is currently grappling with. They are broken down into five categories to input into the PRODUCTION MODULE which also is not included in these rules. CLASS III: represents the rare and invaluable mineralization and substances which make things such as faster than light travel possible. CLASS IV represents simple vegetation, CLASS V represents transformed vegetation such as diamonds, coal, oil, natural gas, life form petrification, and the like. CLASS VI represents special or significant types of plants such as drugs which are of importance, CLASS VII represents basic animal, CLASS VIII: indicated special animals such as phase bounders, Denebian slime devils and the like, CLASS IX represents sentient population inunits of one million, and CLASS X: indicates the existence of remains, ruins, lost colonies, special artifacts, and other types of stuff which originated outside of the planetary system in either time or space.

GEOLOGICAL TIME LINE

TIME INTERVAL		EVENTS
4.0 billion		End of the Pre-Cambrian Era
4.1 billion		Cambrian period - Paleozoic Era
4.2 billion		Ordovician and Silurian periods
4.3 billion		Devonian and Carboniferous per.
4.4 billion		Permian - End of Paleozoic Era Beginning of the Mesozoic Era
4.5 billion		Triassic and early Jurassic per.
4.6 billion		End of Mesozoic Era Late Jurassic and Cretaceous per.
4.7 billion	■	Cenozoic Era - contemporary
4.8 billion		
4.9 billion		
5.0 billion		

4 billion		End of Charnian mountain formation first evidence of early life
100 million		widespread, shallow oceans, trilobites Protozoa, mollusks, brachiopods begin
200 million		First land plants, vertabrates, ostracoderms, and Eurypterids begin
300 million		Caledonian mountain formations, the "age of fishes" including Lobe-fins.
400 million		Rising oceans transform Silurian "swamp forests" to coal and petroleum.
500 million		Appalachian mountain formation, climate changes, Age of Reptiles, colder
600 million		Rocky and Andies mountain formation. End of reptiles, Age of Mammals
700 million	■	Continued Rocky and Andies mountain formations, contemporary period
800 million		
900 million		
5 Billion		

700 mill		Rocky and Andies mountain formation beginning of Eocene period
10 million		Formation of the Indian basalt shelf and the Himalayan mountain range
20 million		Continued mountain formations, first monkeys and dominance of mammals
30 million		Oligocene period, rockies fracturing forms interior basins, proto-man
40 million		Late Oligocene, early Miocene period warmer climate, major upheavels
50 million		Late Miocene, contemporary hardwood forests, migration to the americas
60 million		Pliocene period, cooling of climate, polar cap formation, lowering oceans
70 million	■	Pleistocene period, formation of deserts, beginning of great ice ages.
80 million		
90 million		
800 million		

TIME INTERVAL		EVENTS
70 million		End of Pliocene, formation of polar caps and lowering of oceans
1 million	■	Pleistocene, Beginning ice ages force mass migrations of fauna
2 million		
3 million		
4 million		
5 million		
6 million		
7 million		
8 million		
9 million		
80 million		

1 million		Pleistocene, early glaciation and expansion of desert regions
100 thousand		Continued changes in climate force large migrations of fauna
200 thousand		Gunz glaciation, lower seas and extinction of some flora and fauna
300 thousand		Glacial melting, warmer clima and new migrations of fauna
400 thousand		Mindel glaciation, evidence of paleolithic use of fire by man
500 thousand		Glacial melting, higher oceans and warmer climate, migrations
600 thousand		Riss glaciation, additional extinction of flora and fauna
700 thousand	■	Wurm glaciation, last ice age, contemporary period, Age of Man
800 thousand		
900 thousand		
___ million		

700 thousand		Wurm glaciation, last ice age, Beginning of Age of Man
10 thousand		existence of early hunting and gathering tribes, nomadic
20 thousand		beginnings of agriculture and the domestication of animals
30 thousand	■	5,000 B.C. metal working and written language initiate Holocene
40 thousand		
50 thousand		
60 thousand		
70 thousand		
80 thousand		
90 thousand		
___ thousand		

PLANETARY INFORMATION SHEET

PLANET NAME: Earth - Tellus

LOCATION: Sol -

ORBITAL ZONE: Habitable

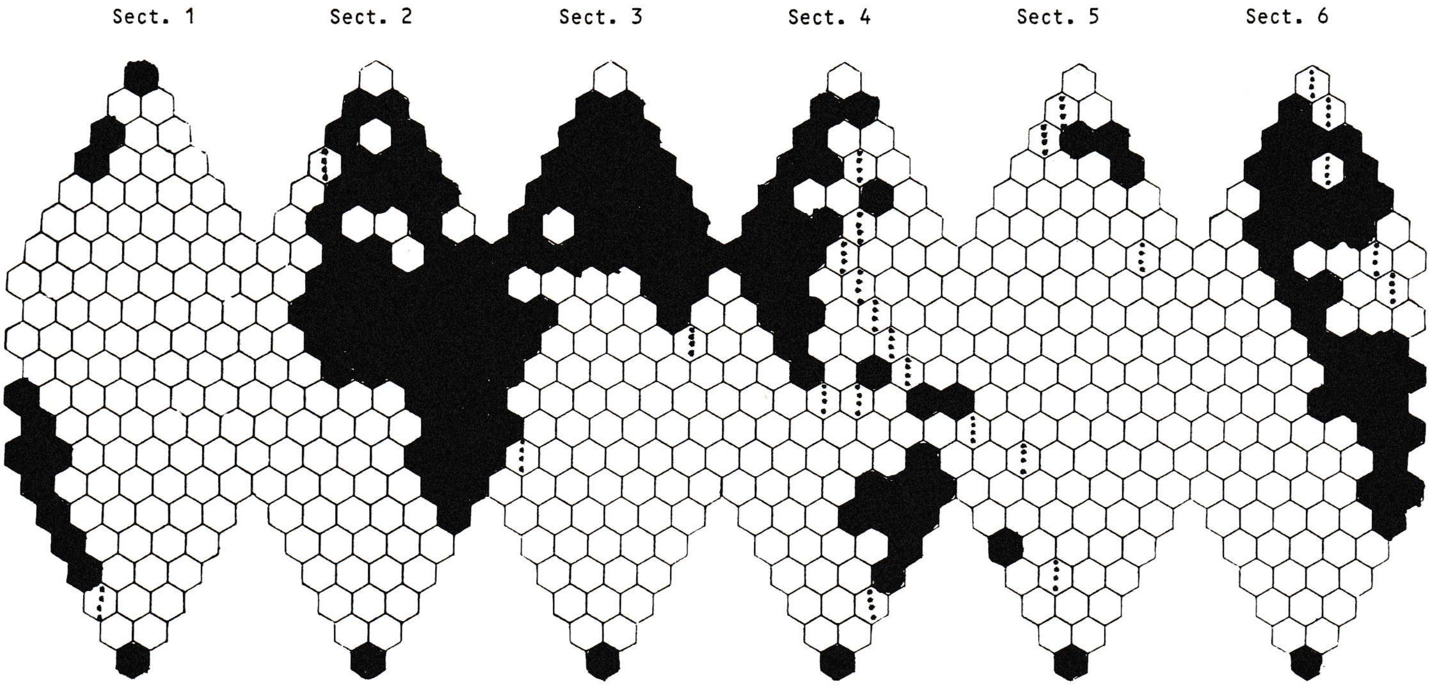
DIAMETER: 12,700 Kms.

SIZE: seven (7)

DISTANCE FROM PRIMARY: 150,000,000 Kms.

PERIOD OF ROTATION: 960 units (24 hours)

PLANETARY SURFACE MAP - SCALE LEVEL: XI (11) 1 HEX = 1,000 Kms.



LEGACY (copyrighted 1978)

BASIC PLANETARY INFORMATION

MOONS: one - 28 day cycle

ATMOSPHERE TYPE: Oxygen - Nitrogen

GEOLOGICAL TYPE: Tellurian

MINERALIZATION: good - 472

ACCESABILITY: extremely good - 793

BIONIZATION: average - 543

ADVANCED PLANETARY INFORMATION

TILT OF AXIS: 4 deg.

WOBBLE: none

CLIMACTIC TYPE: Carbon cycle - Bio dynamic

GEOLOGICAL PERIOD: Cenozoic - Holocene

BIOLOGICAL ABUNDANCE: good - 623

BIOLOGICAL LETHALITY: high - 732

BIOLOGICAL COMPLEXITY: high - 000 - evolution of sentience

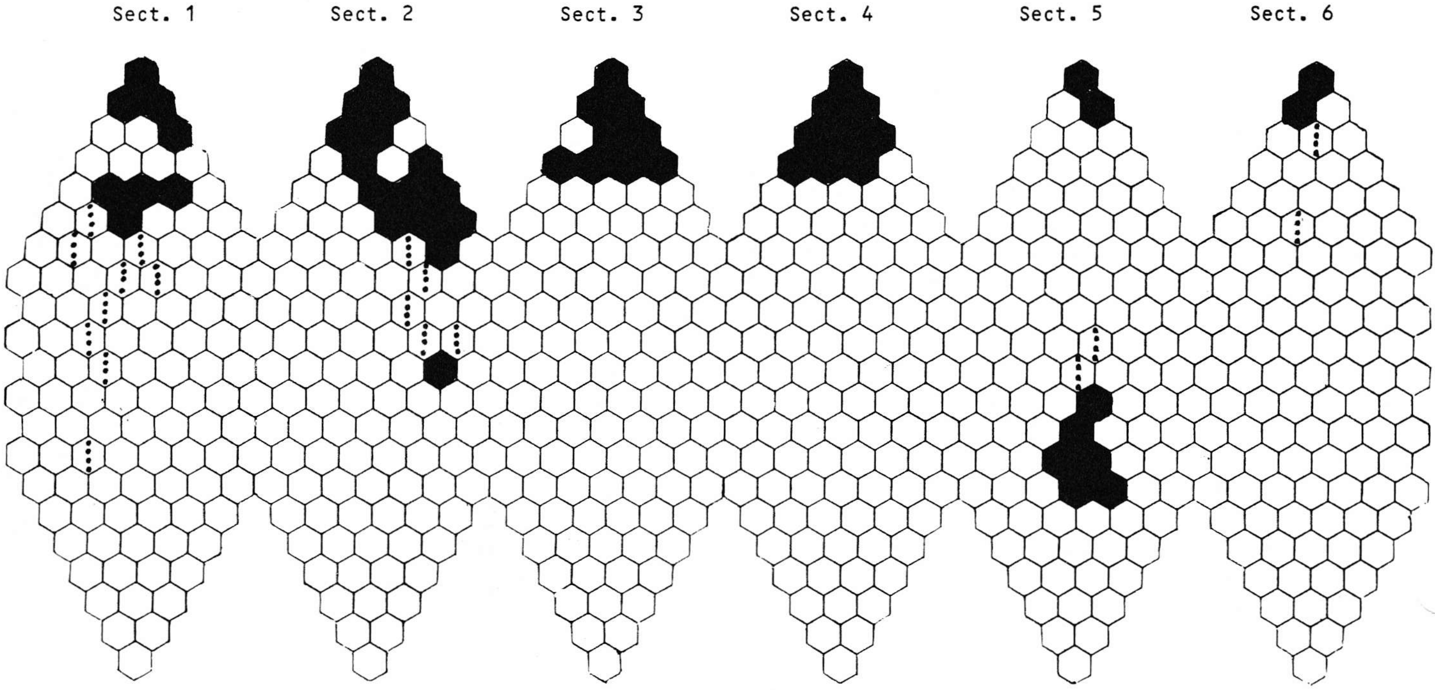
RESOURCE INFORMATION

CLASS	ABUNDANCE	ACCESSABILITY	DESCRIP.	CLASS	ABUNDANCE	ACCESSABILITY	DESCRIPTION
I	1,423	612	Basic/Common Mineralization	IV	650	500	Basic/Common Flora
II	936	481	Energy type Mineralization	V	1,502	612	Transformed/restructered Flora
	074	519	Production Mineralization	VI	023	005	Special Flora
	672	495	Engineering Mineralization	VII	798	600	Basic/Common Fauna
	253	675	Communication Mineralization	VIII	009	031	Special Fauna
	012	008	Transport Mineralization	IX	4,238 pop	979	Sentient Population

PLANETARY INFORMATION SHEET

PLANET NAME: Skye-Aa
LOCATION: Procyon -
ORBITAL ZONE: Habitable
DIAMETER: 13,000 kilometers
SIZE: seven (7)
DISTANCE FROM PRIMARY: 100,000,000 Kms.
PERIOD OF ROTATION: 1,000 units (25 hours)

PLANETARY SURFACE MAP - SCALE LEVEL: XI (11) 1 HEX = 1,000 Kms.



LEGACY (copyrighted 1978)

BASIC PLANETARY INFORMATION

MOONS: None
ATMOSPHERE TYPE: Oxygen - Nitrogen
GEOLOGICAL TYPE: Tellurian
MINERALIZATION: poor - 073
ACCESABILITY: extremely poor - 023
BIONIZATION: average - 520

ADVANCED PLANETARY INFORMATION

TILT OF AXIS: 7deg. +
WOBBLE: factor 2 +
CLIMACTIC TYPE: Carbon cycle - Bio dynamic
GEOLOGICAL PERIOD: Cainozoic - Pleistocene
BIOLOGICAL ABUNDANCE: Good - 741
BIOLOGICAL LETHALITY: High - 531
BIOLOGICAL COMPLEXITY: High - 000 - evolution of sentience

RESOURCE INFORMATION

CLASS	ABUNDANCE	ACCESSABILITY	DESCRIP.	CLASS	ABUNDANCE	ACCESSABILITY	DESCRIPTION
I	114	059	Basic/Common Mineralization	IV	812	500	Basic/Common Flora
II	007	001	Energy type Mineralization	V	054	042	Transformed/restructered Flora
	031	043	Production Mineralization	VI	086	173	Special Flora
	103	025	Engineering Mineralization	VII	519	500	Basic/Common Fauna
	000	000	Communication Mineralization	VIII	123	874	Special Fauna
	490	231	Transport Mineralization	IX	430 pop	195	Sentient Population

GEOLOGICAL TIME LINE

TIME INTERVAL		EVENTS
4.0 billion		Cambrian period, entire planet consists of ocean. Probable early life.
4.1 billion		Kada-Su continent formation, first land near southern pole, fossils
4.2 billion		Gargantuan period, development of giant sea life, erosion of Kada-Su
4.3 billion		Kada-Nor continent formation, early mammal types and first reptiles.
4.4 billion	■	Cenozoic Era - contemporary
4.5 billion		
4.6 billion		
4.7 billion		
4.8 billion		
4.9 billion		
5.0 billion		

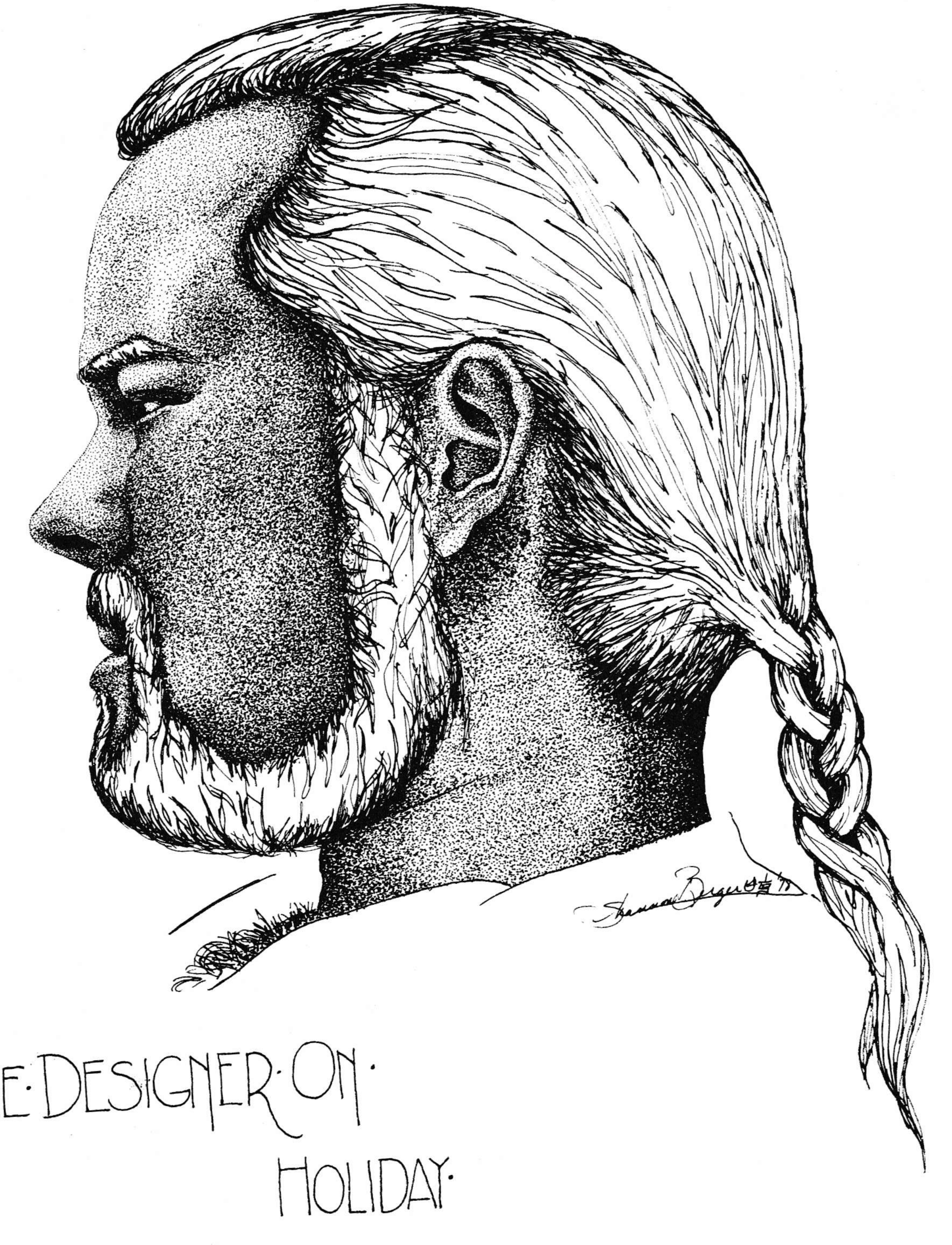
4 billion		stable climate, no fossil remains indicating type of early life
100 million		massive geological upheavals, first land since oceans covered the planet
200 million		Continued geological upheavels force evolution of gargantuan sea life.
0 million		Final upheavals, accelerated evolution compacts appearence of life
400 million	■	Last gasp creates Kada-Mia continent near equator - current biology
500 million		
600 million		
700 million		
800 million		
900 million		
5 Billion		

400 mill		final erosion of Kada-Su continent, volcanic poisoning kills gargantuans
10 million		Continued volcanism causes atmospheric clouds killing most flora
20 million		Final upheavels create Kada-Mia continent, rapid evolution of flora
30 million		Surviving types of flora and fauna surge ahead to fill large eco-niches
40 million		cooling of climate forms ice caps and kills many flora and fauna types
50 million		Ice caps lower sea level, create the Keya-Teu archipelago, first bears
60 million		A period of relative stability allows rapid evolution of all species
70 million		Earthquakes rock planet and threaten flora and fauna with extinction
0 million	■	Floating ice breaks free of polar caps, formation of ice island flows
90 million		
500 million		

TIME INTERVAL		EVENTS
80 million		End of earthquake period and appearence of ice islands
1 million		Proto-Keya-Teu establish competitive refuges on ice islands
2 million		Land areas become habitable to most species, oceans non-poisonous
3 million		Many species leave ice islands, Keya-Teu remain. Climate warms
4 million		Ice islands melt, Keya-Teu leave for Keya-Teu archipelago
5 million		Continued evolution begins the final steps towards true sentience
6 million		Keya-Teu considered sentient, but develope no culture or language.
7 million		Climate cools and ice islands return. Keya-Teu invent language
8 million		Still no signs of culture, some Keya-Teu return to ice islands.
9 million	■	Meteor impact destroys all life on Kada-Nor continent, tilts planet
90 million		

9 million		Ice ages force migration of Keya-Teu to ice islands, other species included
100 thousand		Beginnings of culture to maintain the ice island environment, first Pre-Cog.
200 thousand		Meteor impact disrupts entire planets eco-system, only some islands survive.
300 thousand	■	Recovery and repopulation of the Kada-Nor continent, contemporary period
400 thousand		
500 thousand		
600 thousand		
700 thousand		
800 thousand		
900 thousand		
10 million		

300 thousand		Meteor strikes Kada-Nor continent, planets biosphere disrupted
10 thousand		initial effects subside and the repopulation begins, many extinct,
20 thousand	■	remaining species evolve to cope with settling conditions on Kada-Nor
30 thousand		
40 thousand		
50 thousand		
60 thousand		
70 thousand		
80 thousand		
90 thousand		
thousand		



THE·DESIGNER·ON·
HOLIDAY·

Game Operator's Section

- CONTENTS -

SCENARIO LOADING	Rules and procedures which govern the ability of the game operator to modify and adapt the game environment to best suit the goals of both the game operator and the players.	page **105**
PREPARATIONS	Description of a series of decisions and preparations the game operator must make prior to the beginning of the scenario.	page **114**
OPERATION	Rules and procedures governing the actual play of the LEGACY game, including a detailed description of the gaem operators activities before, during, and after a game session.	page **117**
INTENTIONALITY	Rules and procedures simulating the motivational factors effecting both the player and non-player characters.	page **123**

3.11 SCENARIO LOADING

The game operator must identify his/her needs and intentions as regards the LEGACY game and adapt or modify the structure and characteristics of the game system to best suit his/her purposes. This is done through the examination and analysis of the goals of the game operator and the players which are then cross-indexed with the suggestions and concepts contained on the following pages.

The first portion of the GAME OPERATOR'S SECTION consists of a series of questions of a mildly rhetorical nature which the game operator should ask him/herself in preparation to play one or several connedted scenarios of the LEGACY game. Since these questions do not take the form or effects of rules, they are not accompianied by the margin indicator dividing them into BASIC, ADVANCED, and EXAMPLE areas. The actual rules and procedures relating to their enforcement will be so designated, however.

Portions of the questions and comments listed below are directed towards the gamer primarily interested in the LEGACY game as a source of entertainment, others are directed towards other game operators and designers who may wish to adapt or borrow portions of the LAGACY GAME for inclusion in formative or already existing campaigns, while a portion of the comments and suggestions are directed towards those who may wish to use the LEGACY game system for acedemic or educational purposes. These are partially organized into seperate portions of the text, but the need to conserve space and the convenience of making a point fully in one area rather than spreading across several paragraphs seperated by other information is compelling. The discussion begins with the already established uses and potentials of role assumptions games and branches outward from their.

The first consideration facing the game operator is the determination of the scope and complexity with which s/he will operate the game. To start with the question of real time commitment must be considered.

Many of the currently accepted and frequently used role assumption games such as DUNGEONS AND DRAGONS, EMPIRE OF THE PETAL THRONE, EN GUARDE, TRAVELLER, THE FANTASY TRIP, and others are used in both a "SCENARIO" and "CAMPAIGN" version. The differences between these two types of game usage are discussed and commented on below.

SCENARIO represents an individual or limited number of actions and activities engaged in by the players using a limited amount of information and resources. Some factors may be determined or pre-set due to the outcomes of previous scenarios involving the same player and non-player characters, but this is not necessary in order to play the scenario. In the same way the outcome of the scenario played may be used to load the next scenario to be played or relegated to the waste basket at the descretion of the fame operator and the players, but the scenario itself may be played regardless. The primary factor which differentiates a scenario from a campaign use of role assumption rules is the lack of an ongoing pressure to increase the characters abilities and characteristics as the single significant avenue of advancement. Scenarios are always organized around some specific goal or task, even if that goal or task is the aquisition of some new ability or improvement of a characters values or indicators. This is possible and important in the scenario uses of the LEGACY and other role assumption game systems due to the lack of time to achieve a satisfactorily large increase in the characters abilities and attributes.

CAMPAIGN is a term which was coined by the early users of role assumption games whose initial experience with gaming and simulation was confined primarily to war games. Literally translated and defined CAMPAIGN represents "a series of military manuevers with a particular objective" or "a series of organized, planned actions for a particular purpose, such as electing a cantidate". It has been transliterated by the gamers to mean a collection of scenarios which share a common purpose or goal and a continuing cast of characters. The purpose or objective of a campaign is usually more grandious and abstract than that of a scenario. Examples of campaign objectives could be the simulation of the early cultural development of a planet, the war between large groups of sentients with opposing viewpoints over time, the struggle of sentience against the forces of nature, or whatever the game operator and the players desire.

It is more important for the campaign objectives to be mutually agreeable to both the game operator and the players than it is for the scenario for the simple reason that both game operator and players will be required to invest substantially more of their time to play a campaign than they would a scenario. While a scenario's shortcomings may be balanced against the desire to play the game and the expected brevity or known time of conclusion, the campaign may last as little or as long as the game operator and the players desire. For this reason the campaign objectives must be interesting and agreeable to all parties concerned. The scenario must be more carefully constructed in terms of it's objectives, however, for the task set for the players must be both capable of completion and interesting enough to maintain their enthusiasm for playing the game.

In a campaign role assumption game players are more likely to become immersed in a scrabble for abilities and increases to their CONSTITUTION, INTELLIGENCE, and CHARISMA. This seems to be caused primarily by the concern of the player for his/her player character combined with the desire to equipe the player character with all possible offensive and defensive abilities to increase his/her chances of survival. It is certain that the emotional and intellectual investment of a player in a character s/he will only play for one or several evenings of real time is much less than is the case with a character the player has controled and grown attached to over the course of months or years of real time, and who has finally achieved enough abilities and artifacts to make a proper nuisence of him/herself.

These factors should be weighed carefully be the game operator and the players when deciding what type of game they would like to participate in. Certain applications require the choice of one over the other, such as;

1. A tournament at a gaming concention must be a scenario type experience because the players will not be able to gather together subsequently to continue a campaign.

2. Classroom or educational uses are ideally suited to a scenario type format, as a specific piece(s) of information or experience can be design in to the game scenario. The players participate for a limited amount of time, are exposed to and make decisions concerning the topics of educational interest, and then debrief the experience by sharing their perceptions of the scenario and what it represented.

3. Occasional or unorganized gatherings of people usually require the scenario format due to the unperdictability of their appearence coupled with the often large numbers present at such gatherings. A campiagn may be organized to maintain and record the progress and status of characters and their achievements, but it must be loosely organized in order to accomidate the variable nature of the participants.

4. Individuals or groups who are primarily interested in achieving a brief or initial exposure to a particular concept or a particular role assumption game are usually better of playing a scenario rather than a portion of a campaign game due to the existence of a sensation of closure reached at the end of the scenario. Either the objective of the scenario was met or it wasn't, and no ongoing questions concerning the likelyhood of the player's characters surviving the winter, finding the other lost city, recovering additional treasure, or whatever need be contemplated by the participants. They may quickly and efficiently step back vrom the experience of being personally in control and responsible for a character to discuss and evaluate the overall experience of playing the game.

5. Individuals or groups who wish to accomplish some complex or lasting project which involves substantial expenditures of time and resources, both simulated and real, are subject to the conditions and requirements of the campaign game unless the game operator is willing to spend large amounts of time playing a small number of players

rather than equal or greater amounts of time playing more players. The important variable here is the need for players creating complicated, ongoing, expensive types of play situations to interact frequently and for long periods with only themselves and the game operator present. It is rare for a large scale operation of a player character to contain many other player characters, and the excitiment of the primary player for the project is often to frustrated by the logistics of bringing together a large group of people whenever s/he wants to proceed with the project. This indicates a change indicates a shift in emphasis on the part of the player from a social meeting with others for the purposes of enjoying a game together to the more fanatic desire to progress in the game itself, regardless of the social and other costs. There is nothing inherently wrong with playing games within which one or more of the players is hell bent on establishing a new type of economy, dominion over the entire planet, space travel, or what have you. The problem comes from the potential monopolizing of the game operators time by a few of the players, leaving other players either excluded from the campaign or else left behind of the fanatic players in terms of the passage of time.

6. This brings up another reason to decide between scenarios and campaigns. In a scenario the passage of time usually needs to be recorded only enough to insure the proper use of the rules and the enforcement of any MICRO or MACRO SYSTEMIC EFFECTS. In a campaign game the recording and enforcement of the passage of time is criticle, as the paradox and unfairness of allowing one player more time to take actions within the game should be avoided at all costs. A frequent difficulty encountered by game operators is the laggard player. Whenever one or several of the players in a campaign fall behind the others in terms of the number of days, weeks, or years which they have lived or taken actions within, a potential paradox rears it's ugly head. What if one of the laggard players encounters one of the up to date players at some physical location. They should not really meet because the laggard player is reaching that spot days, weeks, or years before the up to date player reached it, but any actions or activities taken by the laggard player which effect that physical location or other portions of the simulation which relate to the activities of the up to date player would have changed or made themselves apparent to the perceptions or achievements of that player. Many times game operators have tried to explain how a player character could have bought and used a boat to cross a body of water when the boat was later found to have ceased to exist due to the actions of another player character who's actions are effecting the relative past due to his/her laggard status. Various resolutions are possible, but the easiest solution is to set up a series of interconnected scenarios which are based on the outcomes of previous scenarios in the series but which allow the game operator to seperate and isolate laggard players either geographically, chronologically, or topically.

7. The use of a role assumption game as a type of laboratory to explore the possibilities or characteristics of Anthropological, Sociological, or Psychological processes requires that the situation be set up as a tightly controlled and monitered campaign so that the effects and results of the experiment may be extended as long as is necessary. Of course this need not apply to experimental uses which include a manditory or essential time limit inherent in them which is in accordance with the length of time a scenario may reasonably contain.

3.12 PREPARING A SCENARIO

The scenario preparations suggestions take the form of a checklist. The game operator is the only person who knows all of the requirements which a given scenario must meet, but all scenarios share many common elements which are listed here. All, some, or none of these proposed preparations for playing a scenario may be used by the game operator, but I urge inexperienced game operators to carefully weigh the consequences of failing to cover any of the areas mentioned below.

☐ - TIME: Before any person elects to engage in the use of or participation in a role assumption game they must be prepared to invest substantial amounts of their time to the design, book-keeping, and actual play of the game. Even the most strictly defined and limited of scenarios is likely to require several evenings of preparation and at least several hours to play. This is true of all existing role assumption games, not just LEGACY.

☐ - RESOURCES: The game operator should be certain that s/he has access to all of the various tools, supplies, equipment, and reference materials needed to design and operate a scenario. Below is a list of resources considered most useful by an informally polled group of game operators.

1. RULES The more complete and better organized the easier the game operators task will be, but it is essential to choose one or some combination of several rules systems with which the game operator is familiar within which the scenario will be run. I personally reccomend the LEGACY rules to individuals interested in designing a

role assumption scenario. These may be combined with any one of the following rules systems without unduly complicating the preparations for the scenario. TRAVELLER or EN GUARDE by Game Designers Workshop, DUNGEONS AND DRAGONS, EMPIRE OF THE PETAL THRONE, METAMORPHOSIS ALPHA, or BOOTHILL by Tactical Studies Rules, THE FANTASY TRIP by Metagaming, or any one of a variety of non-role assumption games with a particular application to the scenario under consideration.

2. GRAPHIC SUPPLIES Role assumption games regularly employ a wide assortment of paper, pencils, magic markers and the like. The only supplies of this nature which are essential to the LEGACY game are blank, lined paper, one pencil for the game operator and one for each of the players, colored pencils or some other method for coloring in the hexes on the planetary surface maps, a loose leaf notebook to protect and house the LEGACY RULES, and photo or other copies of the forms with which players keep track of their values and indicators. Plastic sheets and grease pencils are often used so that record sheets may be re-used, but I personally find this more frustrating than helpful due to the illegibility of grease pencil writting. Other supplies may be required depending on the specific characteristics of the scenario, but this will have to be determined by the game operator and the players.

3. ADVICE If the game operator is inexperienced in the area of role assumption games the advice or suggestions of an experienced game operator is invaluable. Ideally no person would ever operate a role assumption game without extensive personal experience playing an already existing role assumption game, but since this is not possible the advice and assictence of an experienced game operator is the next best thing. In situations where no advice is possible due to the absolute lack of another experienced game operator I will answer well phrased questions if accompianied by a self addressed, stamped envelope for a reply. My address is listed on the title page and on the QUESTIONNAIRE at the back of this booklet.

Experienced game operators may be able to rely primarily on their own experience, but even they will find that a discussion between game operators is an ideal place to resolve problems and difficulties encountered in the construction and operation of a scenario.

☐ - PLAYERS: No game can operate without players. Frequently the success of a scenario is determined more by the quality and interest of the players then by the preparations made by the game operator. Careful consideration should be given to matching the scenario to the time and ability limitations of the players.

☐ - SPACE: Playing a role assumption game has an amazing capacity to make a large room look small and to fill several tables up as if they could hold nothing. Ideally a role assumption game is played in a circumstance where the game operator has a moderate or large table all to him/herself where s/he can spread out all the necessary maps and tables without giving the players access to information they shouldn't have, and the players have a variety of places to sit and to put their CHARACTER RECORD SHEETS, ENABLERS, MAPS, and other playing aids which is both uncluttered and convenient. This is not always possible, but the feeling of being cramped and smothered has ruined many a game playing experience for myself and my associates.

☐ - PURPOSE: The scenario should have a clear and carefully predetermined purpose which it is designed to accomplish. This purpose may be to demonstrate the game, prove a point, expose the players to a certain way of thinking or acting, simulating a specific event or process, or an openended experiment into the consequences of some particular set of conditions. It really doesn't matter so long as the purpose of the scenario is clearly defined and the actual rules and procedures used to play the scenario have been ruthlessly modified to support rather than hinder the scenario's purpose.

Though often difficult, the key to success for most scenario's is the exclusion of unnecessary rules and procedures. Trimming the game down to it's essentials in order to save time and unnecessary preparation is normally the best of ideas. The specific purpose of the scenario must be examined to determine which rules may be excluded, and the consequences of removing or ignoring rules should be carefully considered by the game operator as part of the ongoing process of checking for logical consistency and playability.

☐ - AUTHORITY: The game operator must be respected and listened to by the players. Especially in a scenario when time is usually at a premium their is no time to waste arguing with a game operators determination or making jokes or comments which detract rather than add to the game experience of all players.

This is not intended as encouragement for the game operator to run roughshod over the players, but the maintainence of order and the enforcement of the continued prosecution of the play of the game is one of the most important responsibilities of the game operator. No matter how good or well designed a scenario is, it may be sabotagued by players or observers interfering with the course of play.

☐ - RESPONSIBILITY: The game operator has a responsibility to the players of a scenario based on the purpose of the scenario and the understand reached between the game operator and the players in preparation for play. I feel that the best expression of this responsibility to players is the honest feedback between player and game operator which should be a part of every game session. If the players do not tell the game operator when they are to tired to continue or to bored by the game to want to play anymore misunderstandings and hard feelings can easily develope. If the game operator is not open with the players when s/he makes a mistake or has forgotten something it will encourage arguement between player and game operator, and the suspicion that the game operator is trying to cover something up or put one over on the players. If both players and game operator observe common curtesies towards each other many difficult experiances can be avoided.

☐ - PATIENCE: The game operator more than any player must be prepared to spend time and effort assisting the troubled or angry player. In setting up him/herself as the referee and major controlling force within the game the game operator must take some responsibility for the effects of the game upon the players. Role assumption games are different from many other types of games in that they promote a high degree of personal involvement and identification between the player and his/her character. This is less true in scenarios than in the campaign version, but a player who has just had his/her character die or recieve a major setback is not always in the most receptive state for jokes or insensitivity from the game operator. Often the players sense of loss and frustration will be directed at the game operator rather than the specific situation or action which caused the setback, and patience is required from the game operator to realize that these attacks are not really personal in nature and to weather them until the player has released some of his/her emotions. By the same token the game operator is only human and the players should strive to refrain from any mistreatment or harassment of him/her. I have personally been driven near to breakdown with ceaseless questions by players about the game and it's possibilities, and some time during which the game operator can relax without badgering and not have to think about the game is critical. Personally I reccomend that the game operator and the players take a break from playing at least once every four hours, and sooner is often better if a convenient stopping point can be reached. This is not as large a problem with scenarios as with campaigns, but an otherwise rewarding game experienced can easily go sour due to over-exposure of the players to the intricacies of the game.

☐ - CLOSURE: The scenario must have an automatic and predetermined method of ascertaining the end of the game. Winners need not be computed, and the objective of the scenario need not necessarily be successfully achieved, but there must be a manner and procedure which everyone knows will indicate the end of the scenario.

The most frequently used is the time limit, where the scenario ends when a certain amount of time, wether real or game(simulated), has passed. This works well for certain scenarios but is inadequate for others.

Frequently some general task or activity is assigned to players in a scenario and the actual objective is kept secret by the game operator for various reasons. This works fine as long as everyone knows that the scenario may end unexpectedly due to either the discovery or the lack of discovery by the players of the objective or purpose. Failure to inform the players of the uncertain nature of the length of the game session may result in bitterness and hard feelings on the part of players who feel cheated of an opportunity ot play or to achieve the secret objective.

All of these considerations are important to the design and operation of a role assumption scenario. A discussion of the objective or purpose of scenarios would be helpful to inexperienced game operators, but the possibilities are so endless that it seems pointless. A list of possible topics or purposes around which scenarios and campaigns may be organized is offered at the end of this SUB-SECTION.

3.13 PREPARING A CAMPAIGN

All of the considerations listed under 3.12 PREPARING A SCENARIO apply to the preparation of a campaign as well, but a series of additional problems which are not critical in the circumstance of a limited scenario become over riding concerns when a game is attempted on the campaign level. Each of these special problems will be discussed below and suggestions made as to how the game operator may best be able to prepare the game and him/herself for these lurking difficulties. This listing also takes the form of an optional checklist, but I urge every game operator to think carefully about each item listed wether it seems to apply to the campaign you have in mind or not. These are difficulties encountered by all game operators in some fashion, and their resolution in favor of the campaign will enhance it's effectiveness and playability.

PREPARATIONS - These are discussed at length in the next SUB-SECTION.

PLAYERS - The frustration and confusion involved in a role assumption campaign can easily and quickly be compounded and multiplied by a constant coming and going of players. If players take a series of actions in the campaign and then leave it, the difficulties of restarting them are numerous. They usually want to play their own character, but the last actions taken by that character may have been game weeks, months, or years ago. They could be moved ahead in game time to coincide with other players who have been continually playing the game, but this results in an unfairness to the restarted player because others have had more time to expand and improve their ENABLERS and abilities. The easiest way to restart a former player in the game is to determine a completely new character for the individual and start that character at the point of game time which coincides with that of the other players. Difficulties of this are mentioned in the next paragraph.

Starting new players once the campaign has been underway for some time is associated with it's own difficulties and problems. The new player will have missed many of the events and activities already completed by the original player characters, but s/he is likely to have heard about them. This gives the new player an unfair advantage in the initial information available to him/her, but since discussion and description of events which occur within the game is the most frequent source of new players this can hardly be avoided completely. A discussion of the problems associated with the alternate and primary flows of information through the game is offered in the INFORMATION SUB-SECTION of the PERSONAL ABILITIES AND CHARACTERISTICS SECTION.

The final effects of letting new players into the game, restarting ald players, and filling in the holes where player characters have left or quite may not be as large as I am suggesting, but the more of this kind of coming and going there is the more of the game operators time will have to be spent regulating the balancing the effects on the game. It is far simplier to start a campaign with a core group of interested individuals and gradually expand or contract the number of players over a large amount of time than it is to try to absorb the extra work and ill effects caused by frequent comings and goings of players from the campaign.

This problem is acute for scenarios, as they usually are very tightly designed and the failure of one player to fullfill his/her duty to his/her character may disrupt the entire scenario. However, scenarios usually last for only a limited period of time and are not normally subject to the temporal attrition of players that is occasionally the bane of campaigns.

A WELL DEFINED PLANET OR ENVIRONMENT - The specific steps which this involves are discussed in the next SUB-SECTION, but the importance of establishing this is stated here.

Players are a naturally unpredictable lot, and often the game operator will be sorely taxed in attempts to second guess and prepare for the decisions and courses of action which they will initiate. It is for this reason that the modularity of the LEGACY game system is such a boon to game operators. If the environment or situation within which the players may take their actions is not clearly defined and recorded the game operator will be forced to make an endless progression of rulings about what is possible and what is not possible within the game environment based on conceptual or abstracted understandings of the nature of the environment which have little chance of being internally consistent.

The lack of internal consistency is a bane to many players of role assumption games, as it invalidates the use of scientific method to explore the environment, creates confusion in the minds of the players, and forces the game operator to make ever increasing numbers of rulings as the players often cannot determine for themselves wether or not a given action is possible within the game system and environment. The internal consistency I speak of may be of any variety. Concievably the game operator may intentionally make a series of conflicting rulings and determinations simply to prevent the players from using technology, scientific method and experimentation, and other current practices and ways of thinking to gain an advantage in the game. This is certainly allowable, and may even be guessed or discovered by the players at some point in the course of play. The important thing is that the game operator make a conscious decision as to the type and effects of some underlying set of attributes and characteristics which apply to the game environment and then stick with them. They should be changed only if change is inherently a part of the internal consistency of the environment or a good reason makes change necessary.

AN ORGANIZED CAPACITY FOR STORING INFORMATION AND MATERIALS - The game operator will end up handling and storing many different types of records, supplies, and playing aids. It is very important that the game operator be able to access these records, supplies, and materials quickly and easily to prevent frustration and delay of the game. I reccomend that a briefcase or box be retained by the game operator in which s/he may place the binder containing the LEGACY and/or other role assumption rules, A notebook containing the CHARACTER RECORD SHEETS and ENVIRONMENTAL information necessary to operate the game, and all of the various ENABLERS, FLORA AND FAUNA CARDS, and TERRAIN MAPPING HEXES that are required for the purposes of play. The tranportation of this box or briefcase to each location in which the game will be played will prevent the frustration of not having a necessary map or rule, and the amount cf order and organization that the game operator is able to impart to the players is directly proportional to the amount of time the game operator is able to spend with them. Frequent interruptions in the course of play so that the game operator can make a complicated determination, consult a missing form or record, or search through the various notebooks and playing aids for something misplaced will result in gaps in the players attention span, non-game related interactions between players and a variety of distracting and often destructive effects on the game itself once play is finally resumed.

This should be stressed strongly. The better organized the game operator is, the faster the game will be able to cycle, and the more actions and activities the players will be able to complete. There exists such a thing as a game which cycles to quickly to allow the players enjoyment or input, but as a rule the less time that is wasted the happier and more interested the players will be in the game and it's implications.

This is also not meant to encourage the reduction of the fellowship and humor which are an important component of any game experience. There is always a time for a joke if appropriate, and in most cases the purpose of a game is enjoyment rather than some specific objective of play or analysis. The point is that to much of this will hurt the game and reduce the subsequent entertainment and enjoyment of the players, and this is the responsibility of the game operator to prevent.

EXPERIENCE - Operating a role assumption campaign is one of the trickiest and most difficult tasks which a game oriented person can involve him/herself in. It is extremely challenging and rewarding if done properly, but the number of ways in which unexpected aspects can rear up and cripple the campaign calls for patience, determination, and some gaming experience and intuition on the part of the game operator. I do not reccomend that any person become a game operator and organize an ongoing campaign until s/he has played several different role assumption games and at least helped to run a role assumption scenario of some type. This is really for the game operators own protection, as the frustration of spending weeks or months preparing a special environment, maps, playing aids, and all of the other work which must go into the creation of a campaign and then wathching the campaing fail because of some unforseen or poorly designed aspect is great. I would spare any gamer this type of dissapointment by encouraging them to obtain experience before embarking on the twisted path of game operating a role assumption campaign.

TIME - When we playtested the LEGACT rules we spent three (3) years playing the game, sometimes as much as fifteen (15) hours a day. This is by no means necessary to play and enjoy a role assumption campaign, but serves to illustrate the size of time commitment which may be required of the players and the game operator if their interest in the campaign expands. Any person who is about to have a baby, has just gotten a new job, is committed to clubs and activities several nights a week, or just values his/her privacy and peace and quiet should probably avoid creating and operating a role assumption campaign. In the final analysis there is no viable substitute for the massive amounts of time required to play in and operate a role assumption campaign, and the game operator especially should be prepared to surrended several evenings a week minimum in order to prepare, operate, and recover from the operation of a role assumption camoaign. Of course the time costs will vary in proportion to the complexity of the campaign itself.

INTEREST - Unless the game operator is truly committed and excited by role assumption games as a whole and the specific campaign s/he is creating in particular it will be difficult or impossible for the game operator to sustain the effort and prolonged commitment of time and resources required to operate a succesful campaign. The players may only play once a week or once every several weeks, but the game operator must be present each and every time a player takes actions in the game. In between game sessions the game operator will have to spend time preparing new aspects of teh campaign, recording the recent actions and activities of the players and resolving inconsistencies and difficulties encountered or discovered during the most recent play session.

Unless there is only one group of players, (unlikely in a good campaign) the game operator will spend at least one night a week playing people and one night a week doing campaign related work. I feel that these estimates are conservative for trul interested and fanatic game operators, but the point out the need for a sustaining interest on the part of the game operator to allow the continued functioning of the campaign. Additionally the game operator must be getting something out of the campaign in order to justify the personal expenditure of time and creativity required to operate it. If no rewards or satisfaction is experienced by the game operator s/he will have to be a member of the Masochistic Game Operators Guild, a little known though large group of game operators who seem to operate role assumption campaigns for extended periods after their interest and enthusiasm has faded. This is a situation to avoid if at all possible.

All of these considerations are important to the initial creation and loading of the role assumption campaign or scenario, but the actual solutions and responses to these requirements must be formulated by the individual game operators in connection with the specific characteristics of their proposed scenarios and campaigns. Below is a listing of possible objectives or goals of scenarios and campaigns. This list is purely speculative, but it should include many ideas which may assist the aspiring game operator.

POTENTIAL SCENARIOS

TOURNAMENT - At gaming conventions or other gatherings of gamers the tournament is a common expression of the competitive spirit which is an important part of gaming. Tournament scenarios must be tightly designed and controled, as the questions of fairness and impartiality are most frequently applied in these circumstances. Due to the limited time avaiable for most tournaments the scenario must be brief and to the point, and normally the participants will all start out with equivalent player characters and resources.

SINGLE SHOTS - A one shot exposure to role assumption gaming, wether for entertainment or evaluation and assessment purposes, is an ideal use of limited scenarios. The players are given the opportunity to manipulate and control a character for a period of time without having to make a large committment of time or patience. The inexperience or mistakes of the players is not of major concern, as the death or difficulty of a temporarily assumed character has no where near as much emotional impact on the player as is the case with an established character in a campaign. The objective or goal of such a scenario should be something attainable such as the quest for a particular resource, the exploration of a specified piece of terrain, or the defeat of a particular force of sentients or organisms.

EXPERIENCE - Scenarios can be great learning experiences for both the players and the game operator, and all inexperienced game operators should conduct one or more scenarios expressly for the purpose of gaining knowledge and experience in the possibilities and difficulties of the role assumption rules used and the overall position of game operation. Such scenarios can assume a whimsical or far fetched aspect without seriously hindering the experiential purpose of the scenario. This is often a good opportunity to explor the lighter side of role assumption gaming while gaining valuable experience.

Scenario topics or plots which may be used by game operators for this purpose may include; explorers from another planet stumbling around trying to make sense of the environment or game situation, wild eyed paleolithic types engaged in orgies of sex and destruction, primitive mans first feeble attempts at agriculture, the invention of the dragon back yard barbaque, etc.

PURE ENTERTAINMENT - For enjoyment and interest few scenarios can top those containing dungeons, castles, magic, dragons, and the like. Fantasy or Science fiction rules which are modified or adapted for use with the LEGACY rules should be tested first in a scenario or two, and for simple or complicated pleasure this combination of LEGACY rules and specific scenario information and other abilities from existing role assumption games. A discussion of ways other rules can be grafted onto the LEGACY game system or visa versa is included in the DESIGNER'S NOTES.

KILLING TIME - Scenario role assumption games are good for eating up the hours, but if you have a large amount of time to kill a campaign is far better suited.

EDUCATIONAL PURPOSES - Though many teachers and instructors will be unwilling to invest the time necessary to gain sufficient expertise to use role assumption games in their classrooms, this is becoming more and more feasible. The LEGACY game system is specifically intended to be adaptable for such pruposes, but it's primary market among war and role assumption gamers requires that a large body of rules and details be included that are not needed or useful to the academic gamer. I forsee immediate applications of the LEGACY rules in the Anthropology class room as a type of laboratory experience in what it feel like to live the life of a Yanomamo indian in the amazon river basin or a Kalihari Bushman, but it will require time and careful study on the part of any instructor to cull the important elements for such an objective from among the many possible uses and inteypretations of the LEGACY rules. The concept of using LEGACY for a hands on experience in the Anthropology classroom will be tested at the University of Michigan some time during the 1978-79 academic year, but no further details are avialable at this time. For persona wishing further information on this experiment or help in adapting LEGACY to classroom use please contact me. Additional materials and information will shortly be available for this purpose.

POTENTIAL CAMPAIGNS

CLASSICAL - Up until this point in time the most widely known and used role assumption rules are the DUNGEONS AND DRAGONS game system. It is extremely unlikely that LEGACY will appreciably change this, though I expect that many users of the DUNGEONS AND DRAGONS rules will appreciate and use many of the rules and concepts contained in this booklet. The reasons why DUNGEONS AND DRAGONS has enjoyed such widespread acceptence is that it was first, an important selling point, and that it games a situation that holds a great deal of fascination for many gamers and non gamers alike. The classical DUNGEONS AND DRAGONS campaign consists of starting characters out with a small number of abilities and placing them in either a wilderness or dungeon environment in which they may conduct various adventures, fight various monsters, and attempt to b-ost their "level" by gaining ever increasing numbers of "experience points". Experience points have been replaced in the LEGACY game system by ENABLERS, but otherwise there is no reason why the DUNGEONS AND DRAGONS rules and style of campaign can not be adapted for use in conjunction with the LEGACY rules. Specific suggestions for combining the DUNGEONS AND DRAGONS rules with LEGACY are included in the designer's notes.

SCIENCE FICTION - This seems to be the newest trend in role assumption as well as conventional gaming, and is in fact where the LEGACY game system got it's start. The LEGACY rules themselves do not contain the types of information and players aids needed to conduct a science fiction oriented campaign, but such rules and players aids are readily available in a host of other games. These are discussed oin detail in the designers notes, but it should be noted that the LEGACY rules are specifically designed to form the basis of a special type of science fiction game. These additional rules exist, they have just not been published as yet. If sufficient interest in the LEGACY rules contained in this booklet occurs these other modular rules covering such subjects as PSYCHIC ABILITY, LANGUAGE AND COMMUNICATION, CULTURES AND CIVILIZATION, TECHNOLOGY AND RESEARCH, INTER-SYSTEMIC and INTERSTELLAR MOVEMENT, STAR SYSTEM MAPPING AND EXPLORATION, CAUSAL FUGUE, and the like may find themselves published by the time ORIGINS 79 rolls around. For the meantime any of the existing science fiction games contain many ideas which may be combined with the LEGACY rules to form an interesting science fiction campaign. Of course the mapping of planets and their ecosystems are already included in the LEGACY rules, and there is no reason why more than one planet cannot be mapped by the game operator.

ANCIENT - MEDIEVEL - Though the LEGACY rules are much closer and contain a higher percentage of the rules needed to represent these periods there are still gaps which must be filled. the ENABLERS included represent only stone age weapons, and bronze and iron age technology and artifacts are not mentioned or included. In order for a feudal or other period to be represented in a campaign additional rules must be included to cover these and other areas. I strongly reccomend to anyone interested in establishing a campaign of this type that they purchase a copy of CHIVALRY AND SORCERY designed by Ed Simbalist and Wilf Backhaus of FANTASY GAMES UNLIMITED. Though not well organized and requiring a magnifying glass to read these rules contain a wealth of ideas and information concerning the simulation of the feudal setting. I hesitat to reccomend these rules for other types of campaigns due to the specific nature of the rules and tables and the lack of information pertaining to how they may be adapted for purposes other than gaming the actions of knights, feudal vassels and the like. However, for their area of caverage they are so complete as to be almost unusable. Clearly a careful look at what they have to offer is in order. More on this in the designer's notes.

HISTORICAL - Simualting a historical period using the LEGACY game system is easier and more rewarding than is the case with other role assumption games due to LEGACY'S more direct correspondence to reality as we know it. However for periods other than the early stages of transition from a hunting and gathering to an agricultural and domestication of animals society important information and rules are missing. I would reccomend a careful combination of research into the period, expansion of the ENABLERS to include those which were available and used during that period of history, and liberal theft or barrowing from any game which bears on the period to be campaigned. Once more the game operator will be largely on his or her own once the possibilities of the basic LEGACY rules are exhausted, and such a campaign should only be attempted by someone with extensive knowledge of the period and substantial role assumption gaming experience.

PREHISTORIC - This is the area for which the LEGACY booklet you have in your hands was intended, and it is in this area alone that it can be considered relatively complete. The transition from nomadic hunting and gathering tribes to a stationary agricultural society is one of the most important and long lasting of man's evolutionary adaptations to his environment. This period of history is both fascinating and exciting for the following reasons.

The impact of a single players actions can be vast. It may be true that the race will develope agriculture eventually, but the individual who begins the movement and builds the first city can be considered to have had a powerful effect on the course of history. The invention of language and writting are two additional major advances in the nature and abilities of a race, and these can be incorporated as well into the campaign.

Without another set of rules or substantial work from the game operator this is the only area in which the LEGACY game system is currently prepared to offer sufficient information to initiate and run a campaign.

3.21 PREPARATIONS

In order to initiate a scenario or campaign the game operator must first make a series of decisions and other preparations. These are described on the following pages from the standpoint of a scenario, but the assumption should be made that the same preparations that must be made for a scenario must also be made for a campaign but more so.

The margin pattern returns with this SUB-SECTION to indicate which preparations are required for the basic rules, which are required for the advanced rules, and which areas of text are merely examples of possible preparations.

☐ - RULES

The game operator must first decide which game system or combination of game systems s/he will use as this willeffect all subsequent preparations. Additionally the game operator should determine wether s/he will use only the basic LEGACY rules or both the basic and advanced LEGACY rules. The LEGACY advanced rules should not be used alone do to the extreme amount of time required to play even the most straightforward of situations using them.

☐ - ENVIRONMENT

The game operator must decide wether the game environment will be the surface of a planet, the interior of a planet, a portion of the surface of a planet, the interior of a space ship or star ship, an imaginary flat universe, or whatever. No details need be filled in as yet, but the rough circumstances within which the game will be played must be set forward at the earliest opportunity.

☐ - MACRO-SYSTEMIC INFLUENCES

The game operator must decide to what extent the greater universe will be permitted to effect the game environment. For each allowed effect a table, chart, or other rules must be chosen or designed to represent the frequency of occurence and the changes in the environment brought about due to the macro-systemic influence. Examples of macro-systemic influences are;

1. RADIATION - cosmic waves, sunspots, novas, solar flares, etc.
2. MATTER - comets, meteorites, rouge planets, moons, etc.
3. SENTIENCE - space travelers, aliens, monsters, flying saucers.
4. PHYSICAL - the extent to which the game universe which the game environment inhabits follows the known laws of physics.
5. GALACTIC - The effects if any of the solar systems motions through the galaxy on the game environment. Passage through dust clouds, variations in the visible star constillations, etc.
6. UNIVERSAL - The effects of any large, impersonal force on the game environment. Includes entropy, enthalpy, and existing theories of physicists as well as imagined or created effects

☐ - MICRO-SYSTEMIC INFLUENCES

The game operator must determine to what extent the unseen world of micro-organisms, molecules, atoms, subatomic particles and the like effect the game environment. This is reflected primarily in the DISEASE RESISTENCE and CHEMICAL REACTIONS rules, but any other effects of changes wrought by such micro-systemic influences should be determined, recorded, and represented by a rule, table or chart indicating the frequency and nature of their effects. No specific list is included, but factors relating to genetics and random mutation, the evolutionary processes of miniature organisms and alien chemistries would all be possibilities.

☐ - CAMPAIGN OR SCENARIO

The game operator must make an early decision as to wether or not his/her useage of the LEGACY or other role assumption rules will be in the format of a single scenario, a succession of scenarios, or a campaign type format. This decision ahould be influenced by the choice of rules and all of the considerations and factors listed in the SCENARIO LOADING SUB-SECTION.

☐ - PLAYER CHARACTER SPECIFICS

The game operator should examine his/her choices of rules, environment, and format to determine what type of role the players will assume and what the likely sphere of their actions will be. Important questions to ask are; Which race or races will the players become? What kinds of interactions will they have with their environment? What mechanism will be necessary to keep track of their actions and activities over time? and What thresholds or secrets are there within the environment or the player characters themselves which the players can discover or attain?

A second important consideration is how the player characters values and indicators will be determined. Three primary methods exist as explained in the OPERATION SUB-SECTION, but briefly they are;

1. PERCENTILE dice are rolled and the number becomes one of the players prime requisites, i.e. CONSTITUTION, INTELLIGENCE, or CHARISMA.
2. PERCENTILE dice are rolled and a table is consulted which indicates the individuals prime requisites.
3. The player characters values and indicators are predetermined by the game operator by either of the two methods listed above or judgement

☐ - ENVIRONMENTAL SPECIFICS

The game operator must determine how much land will be mapped, what the climate and weather will be like, what types of flora and fauna will inhabit the environment and what effects these environmental components will have on the player characters. Rules covering each of these areas are included in the ENVIRONMENT SECTION.

The game operator must fill in the necessary forms, make the necessary maps, and prepare the other details of the environmental/player character interface. This may be done selectively in the case of scenarios or partially as in the case of campaigns. Partial completion of this step is standard, and simply means that not all of the various facets of the environment are determined initially. Instead the game operator agrees to spend time during the actual play of the game to fill out the missing portions or aspects of the environmental characteristics and behavior.

☐ - TIME SCALE

The game operator must decide which time scale or scales will be most frequently used while playing in order to prepare the terrain, flora and fauna, and other effects to coincide most easily with the cycling of player character actions. For detailed situations in a scenario time scales might be 1 unit (1.5 min.) or 10 units (15 min.) while a campaign will most likely use time scales of 100 units (2.5 hrs.) or 1,000 units (1 day), with occasional forays into the time scales more detailed. Regardless of the time scale or scales chosen the game operator should tailor some of the tables and information to be most accessable and most easily used in conjunction with that time scale.

A second time related consideration is the duration of the game. This must be considered both in terms of individual game sessions and the time required to play the game to some point of completion, evaluation, or pause. For scenarios the two may be identical, while for campaigns individual game sessions may last a matter of hours real time while the overall game may require years to complete.

☐ - NUMBER OF PLAYERS

This decision is effected both by the time scale considerations mentioned above and the amount of time the game operator is personally willing to invest in the scenario or campaign. Reccomended number of players for a campaign is less than ten unless several of them are willing to consistently team up and share playing time, while reccomended number for scenarios may range up to thirty five or forty persons depending on the experience of the game operator and the requirements and purposes of the scenario. Basically the more time is available the more individuals may be played.

☐ - HANDICAPS AND LIMITATIONS ON PLAYER CHARACTERS

The game operator must determine what limitations or benifits s/he will bestow on player characters to help equalize the capabilities of players with varying amounts of experience and ability with respect to role assumption games. Some game operators like to let players with more experience or common sense surge ahead while other game operators prefer to limit the better players and assist the weaker players with better initial values and indicators, ENABLERS, or some other aspect. In my mind any of these practices are reasonable if applied consistently from the start of the scenario or campaign. What I feel is unfair is limiting the options or possibilities for advancement of a character once the game has begun and they have played in it simply because they are doing better than other players.

☐ - SENTIENT ENVIRONMENT

The LEGACY rules contain a special system called INTENTIONALITY which allows the game operator to simulate the actions and effects of any number of sentient non-player characters. The game operator must decide to what extent s/he wishes to use the INTENTIONALITY rules and how much or many of the other inhabitants of the environment s/he wishes to organize and maintain records on. Normally the actions and activities of the player characters are restricted to a limited geographic area such as a continent or hemisphere. If this is the case only those non-player characters living and interacting in that geographic area need be simulated, though the game operator may elect to define and simulate a much smaller portion of the sentient population of non-player characters. The INTENTIONALITY rules are contained in the INTENTIONALITY SUB-SECTION located at the end of the GAME OPERATOR'S SECTION.

☐ - MODIFICATIONS

The game operator must decide at the start of the scenario or campaign wether or not s/he is willing to change or modify the rules s/he is using during the play of the game. The alteration of rules which have already effected players, especially if the effects were negative, is likely to cause confusion and bad feelings among the participants in the game. Often a rule is simply wrong or poorly written and must be interpereted by the game operator in order for the game to proceed, but the alteration of an already existing rule which has already been determined to have a certain definition and set of effects causes the players to doubt the permenence and dependability of the rules, and raises questions of fairness and the need to play a situation or event over again using the new rule(s). This should be avoided at all costs, and the game operator must decide how s/he will handle discrepencies and interpretations of the rules at the beginning of the game and stick to his/her method of handling such situations in all circumstances. Experienced game operators will already understand the need for consistency and evenhandedness in pacifying player characters.

☐ - INFORMATION RESOURCES

The game operator must decide to what extent s/he will use the information rules contained in the PERSONAL ABILITIES AND CHARACTERISTICS SECTION of the rules. Information can be an important and sought after resource in the campaign or scenario, or it can be allowed to slide, sometimes subject to rules and sometimes freely dispensed by the game operator, other players, and non-player characters as is the case in games like DUNGEONS AND DRAGONS. Even though I have criticized my own INFORMATION rules in other portions of the LEGACY booklet I still reccomend that the basic reccomendations contained therein be followed. The existence of secrets and subplots within the game serves to make the game more mysterious and exciting, and the act of discovering something the game operator has not revealed which integrates with existing information to give a player a new perspective on the game and on the options open to him/her can be one of the most interesting and emotionally satisfying events which can be simulated by role assumption games. For a more complete discussion of the value and utility of keeping careful track of the flows of information through the game see the Designers notes.

Another important information related decision is how much information the players recieve when they are given or roll their initial character.

3.31 OPERATION

To actually operate the LEGACY game system or a combination of the LEGACY and other game system a number or preparations and procedures must be followed before, during, and after each and every game session. These preparations and procedures are described below and on the following pages. Modifications may alter the specific preparations and procedures required of the game operator, in which case the game operator should make a new list based on the changes in rules and procedures that have been made. The important thing is that the game operator have a list which s/he may consult to determine wether or not all of the necessary steps and determinations have been completed at each stage of play.

☐ - EQUIPMENT

The game operator should check to see if all of the maps, forms, ENABLERS, FLORA AND FAUNA CARDS, supplies, and rules s/he will need for the play of the game are available and organized. Specific requirements are percentile dice, pencil and paper, and sufficient maps, rules, and playing aids to cover the possible actions which may be taken by the players during that game session.

If any maps, information, or other items are unavailable or nonexistent the game operator must devise replacements or create the necessary components. This is an ongoing process in a campaign, as each set of actions and activities on the part of the player characters opens up a new series of options for which the game operator must be prepared. The more of this preparation completed prior to the game session the fewer interruptions will occur during the actual course of play.

☐ - INTERRUPTIONS

The experienced game operator will frequently be found with a preplanned contingency package for situations where one of the crucial players gets an important phone call from his missing aunt, someone burns himself while lighting up a bowl, or some other unfortunate but unshakable gap in the course of play. Two types of contingency packages are possible, the first consisting of a series of tantalizing clues with which the remaining players may grapple, a new idea for practicing or training some skill or ability, new perspectives on old adventures which the players participated in, tales from the history of the planet or environment within which the game occures, or some other way of keeping the players occupied, interested, and thinking about the game. This serves two purposes, to keep as much of the concentration and inertia of the game in motion so that things don't have to begin from a "cold start" when the interruption is over, and to reduce the occurence of such interruptions as the missing player will feel that s/he is being left out of important or valuable information concerning the game. Of course this is not always appropriate. Sometimes such an interruption is a welcome opportunity for a much needed break, while other times the nature of the interuption does not indicate that psychological pressure be applied to the missing player or players.

The second type of contingency package which the game operator may want to prepare consists of some prepackaged information, a shread of map, or any other type of object or information which the players can examine and comment on among themselves while the game operator takes a break. The reason for the break may be the need to rest for awhile, the need to expand a map or alter a table, or something else. The important part is that the game operator must temporarily leave the players to their own devices, and it is usually preferable to leave them to a device of the game operators devising. The same conditions of appropriatness apply to this type of contingency package as to the one listed above.

☐ - OBJECTIVES

If the game to be played is a scenario the game operator must have previously worked out the prior information and purpose of the scenario as explained in the SCENARIO LOADING and PREPARATIONS SUB-SECTIONS.

If the game is a campaign it is sometimes advisable for the game operator to have an option available to the players worked out and a method ready to suggest it to the players if they seem to spend an undue amount of time flailing around trying to figure out what to do. This may not be strictly necessary or required, but it often saves a great deal of time and frustration.

☐ - PREPARATIONS FOR PLAYER CHARACTER DEATH

When a player's character dies it is valuable for the game operator to have on hand all of the necessary forms and information to allow the player to establish a new character at some time prior to ending the game session. This does not apply to scenarios where only one character is possessed by a player for a limited time and no attachment or identification is formed between them, but the loss of a character which the player has been in control of for an extended period of time can strike deeply and become an extremely unpleasent experience. The solace of possessing a new character and new possibilities shortly after the player characters death can give the player something to look forward to rather than the mistakes or misfortunes of that evenings playing.

I have known many players to develop a substantial attachment to their characters, and the loss of a player character is not to be taken lightly in a campaign game. If nothing else it puts the player at a disadvantage compared to other players which have retained their characters, ENABLERS, and other abilities

☐ - RECORD KEEPING PREPARATION

The game operator is responsible for keeping careful records of the actions and activities of player characters as well as recording any actions or activities initiated by non-player characters due to the effects of the INTENTIONALITY rules. To properly accomplish this the game operator should prepare all of the necessary time record forms ahead of time so that all that s/he needs to do is enter the ACTIVITY STATES and results of actions and activities undertaken by the player characters. The time record sheets located at the back of the LEGACY booklet in the COLLECTED TABLES SECTION should be filled in as to the names, dates, location, and other factors involving the player characters whenever these facts are known to the game operator ahead of time. This not only saves time once the players and the game operator are assembled, but decreases the chances of a player accidently getting a look at what is more often than not secret information listed on the time record sheet.

Another type of record keeping preparation involves the charting of the player characters and other significant game components position on the maps representing the geographic area of the environment. If several different player characters which play the game at different times are all operating in a close spatial and temporal proximity to each other careful preparation is required on the part of the game operator in order to prevent time CAUSE AND EFFECT PARADOXES. Possibly the two (or more) groups are likely or certain to meet up with each other and the game operator may take the liberty of contacting the non scheduled group and informing them that they are about to encounter another group of player characters (the fact that components within the game are player controlled may be kept secret from other players as described in the INFORMATION rules) and if the encounter is eminent they may be requested to meet independently and wait be the telephone, to appear at the place at which the game is being played at a certain hour, or to plan on scheduling a joint game session with the other group of player characters. The possibilities here are large, but a little forsight on the part of the game operator can substantially ease the difficulties and paradoxes which can easily result from such meetings.

Additional discussion of some of the special problems of record keeping are included in the information SUB-SECTION.

☐ - INTRODUCTION AND REVIEW

At the beginning of each game session, or in the case of a limited scenario at the beginning of the only game session, the game operator should make a series of opening remarks explaining how long the game session will last, what special occurences, preparations, or activities the players need to know about, and the answering of any questions that the players may have concerning the rules, the manner in which the game session is to be organized and run, or any other questions pertaining to the game session, the game itself, or the game operators general health. Often this INTRODUCTION AND REVIEW time also includes socializing and general loud behavior if the game operator and the players are also good friends. It is often best to get the most distracting portions of socializing out of the way in the beginning so as to minimize overt distractions later in the game session.

Another useful series of remarks from the game operator can be the review of the player characters previous actions and their effects. In the case of a limited scenario this may mean the description of facts leading up to the events of the scenarion itself of which the players had no part. This serves to not only help to get the game operator and the players oriented to the worls of the game but also serves as a reminder to the players of who they are and where they are going.

☐ - PERSONAL CHARACTERISTICS AND RULES CHANGES

Often the increases or decreases to a players values and indicators are computed by the game operator between game sessions. When this is the case the first order of business for the game operator and the players should be to make sure that all of the player's CHARACTER RECORD SHEETS are up to date with the latest increases and decreases. Alternately, if the players themselves take responsibility for computing and recording the increases and decreases to their CHARACTER RECORD SHEETS they should inform the game operator at the beginning of each game session of their altered values and indicators. This applies aspecially to STATUS and ENABLERS. If the players are other than NORMAL STATUS this should be reported and the reason reviewed. If the player(s) have recieved a new ENABLER(S) the nature and use of that ENABLER(S) should be discussed.

Additionally this is the time when the game operator should make the players aware of any rules changes or new rules of which they have a way of knowing about. Discussion of the possible secretness of certain rules is contained in the INFORMATION SUB-SECTION.

EFFECTIVELY this time is for the taking care of business which must be recorded or resolved before the actual play of the game may commence.

☐ - SET UP AND PRELIMINARIES

After all of the already mentioned preparations have been completed and the rules changes and all have been recorded the game operator and the players should set up their respective areas. Technically this may be done during the PERSONAL CHARACTERISTICS AND RULES CHANGES and INTRODUCTION AND REVIEW phases, but it is described as a seperate step for clarity.

The players should have room to spread out their CHARACTER RECORD SHEETS and any maps, ENABLERS, and other playing aids they may require. The game operator needs a seperate table or area where s/he can spread out the master maps, time record sheets, and other information needed to conduct the play of the game. I personally favor a "referee screen" which is a cardboard foldable divider which stand up by itelf and acts as a barrier between the game operator and the players, sheilding sensitive maps and documents. On on side of the screen is a blank surface or picture while the other side contains the tables necessary to operate the game. The tables and charts in the COLLECTED TABLES SECTION are designed to be copied and placed in such a "referee screen" and game operators will find that the possession of such a screen is a substantial convenience and speeds the course of play considerably.

☐ - THE COURSE OF PLAY

The play of the game has finally begun, and the game operators first action is to describe the immediate surroundings or environment to the players if s/he has not already done so in the INTRODUCTION AND REVIEW phase. The burden of action is then on the players. They will indicate to the game operator which ACTIVITY STATES, ACTIVITY POINT and CONCENTRATION FACTOR allocations and expenditures they are making, and describe their actions and activities, if any. The game operator may ask questions to clarify the exact actions or activities of the players or may indicate to them changes which they must make in their proposed actions, allocations, or expenditures to be in accordance with the rules. As soon as every one understands what the players are doing and what they are doing it with the leader of the players or one of the players, whichever the group has agreed on, says the word "COMMENCE". This indicates to the game operator that the player characters are actually performing the action or activity and are subject to any consequences or results associated with that action or activity. Sometimes a die roll or some other input is required from the players, but once the word "COMMENCE" has been said the action has begun and the best the players can do to stop it is to interrupt the action or activity in progress. This rule should be absolutely enforced by the game operator, who should refuse to inform the players of any outcome to their action or activity until one of the players says "COMMENCE". The purpose of this rule is to remove a large source of arguements and wasted time in role assumption games. Frequently players will discuss an action, get information from the game operator as to the results or effects of that action, and then insist that they were just thinking about it and didn't actually do it, thus suffering none of the effects. Curiously player characters seem to claim this frequently when the outcome or result is negative but seldom if the outcome is positive. The word COMMENCE was chosen because of it's relevant definition and the small chance of it's being accidentally uttered in casual conversation. Every time that the game operator hears the word COMMENCE it is a signal from the players to resolve or determine the effects and results of an action or activity which they initiated and triggered by the COMMENCE phrase. If you don't like the sound of the word COMMENCE choose another. The important thing is to have an agreed on signal which indicates the exact moment in real time when the players initiate a described action or activity.

Play continues in this manner with the players announcing their ACTIVITY STATES and describing their actions and activities and the game operator evaluating them and reporting the results and effects to the players until an influence from the environment interrupts or modifies the actions and effects of the players. At this point the game operator takes whatever actions are called for by the nature and behavior of the influence. This may interupt the progression of activities which the players were involved in, or it may only modify or enhance the activities and actions of the players.

☐ - RULES ENFORCEMENT

The game operator must prevent players and non-players from violating any of the established rules of the game universe, no matter what they might be. The force of gravity may not be negated by a player unless some specific ability or artifact permits it. These types of rules are called natural laws. They are absolute and unchangable by players or game operators unless some specific ability to do so is granted by an ABILITY SEQUENCE or an ENABLER. The game operator is given special authority to meddle with these laws when initially creating the game environment, but from the point the game begins they may not be changes except under extreme circumstances.

A second set of laws exist and they are called nexus laws. Nexus laws may be sentient (Man) made, traditional or assumed, or enforced by some particular environmental component which may be circumvented. Taxes and disease are two examples of nexus laws. Taxes are created by sentients to redistribute a small amount of wealth from a given constituency and concentrate it for some purpose. The purpose is usually governmental in nature, and the strength of the government is the usual method of enforcement. Disease exists naturally in the environment due to the processes of evolution. Rules or constants exist in these rules concerning the effects of diseases, and many of these diseases have descriptions which read TREATMENT: none. This need not be the case, for the only enforcement of the disease = death rule in such circumstances is the effects of the disease itself. If a substance from the environment such as a drug were introduced into the victim which blocked the effects of the disease the disease = death rule would be broken with no consequence. It is the responsibility of the game operator to make sure that the enforcement or consequences for the breaking of any nexus law are felt by the player(s). However, if these effects are blocked or are not applicable, then no effect is felt by the player(s).

The natural and nexus laws are not specifically identified as such, though common sense will quickly enough point them out. Suffice it to say the the overwhelming majority of these rules contained in the LEGACY booklet are nexus laws while the philosophy or truth behind the rules are often natural laws. A simple example is the assumption of the LEGACY rules that every action has an effect of some type on the universe as a whole. It is just that the effect may be to small or to large to be of significance to any of the components of the LEGACY game system.

☐ - CLARIFICATION

A frequent task of the game operators is to make sure that the players know what they are talking about. Often the players get excited or involved in an action or activity and start making conflicting or senseless statements about their proposed actions and activities. It is the sometimes difficult job of the game operator to help the players phrase their intentions in a form or manner acceptable to the game system. A secondary concern of the game operator should be to instruct the players in the implications of the rules which they have presumably studied but failed to understand. This will allow players to devote more time to actually initiating and resolving actiona and activities rather than waste time trying to find ways to describe them.

☐ - CORRECTION

When a player misunderstands or misrecords information given to him/her by the game operator then the game operator should make a reasonable effort to correct the player. This should not take place when the mistake made by the player is left standing to simulate a failing of INTELLIGENCE or other player character ability, or some other environmental effect. Correction should also not take place if the failure of the player is one of misinterpretation rather than confusion or misunderstanding.

☐ - ACTIVITY POINT RULES OF THUMB

Rather than resort to frequent computation on the pocket calculator, or the even more time consuming pencil and paper every time a player wishes to conduct an action on the advanced CONSTITUTION WORK ACTIVITY STATE the game operator may estimate the required number of ACTIVITY POINTS using the rules of thumb listed below. Basically these rules of thumb consist of a listing of the ACTIVITY POINT costs for many actions and activities frequently initiated by players. Knowing that a certain size rock costs 3 ACTIVITY POINTS to move and that a larger rock costs 5 ACTIVITY POINTS to move it is easy to estimate that a rock weighing an intermediate amount would require and intermediate number of ACTIVITY POINTS, 4 in this case. Using this same rough procedure of estimation the game operator may quickly and painlessly determine ACTIVITY POINT COSTS for a wide variety of actions and activities. If the action or activity initiated by the player is not shown below examine the closest action or activity listed and estimate the ACTIVITY POINT cost based on the values for that action or activity and common sense.

Often these rules of thumb are more accurate than the formulas themselves due to the difference between the operation of a mathmatical equation and the operation of a physical structure such as the human body. If questions or confusion arises it is best to consult both the rules of thumb and the formula relevant to the action or activity and then use common sense to determine the most likely or reasonable costs.

DIGGING Digging is almost always done with an implement or artifact of some kind. These estimates reflect the effects of such an artifact.

0.1 A.P. + 1 unit (1.5 Min.) = 500 cubic centimeters of loose soil removed
0.2 A.P. + 1 unit (1.5 Min.) = 500 cubic centimeters of packed soil removed
0.3 A.P. + 1 unit (1.5 Min.) = 500 cubic centimeters of clay or shale removed
0.5 A.P. + 1 unit (1.5 Min.) = 50 cubic centimeters of rock removed, cut

1.0 A.P. + 10 units (15 Min.) = 5 cubic meters of loose soil removed
1.0 A.P. + 10 units (15 Min.) = 3 cubic meters of packed soil removed
1.0 A.P. + 10 units (15 Min.) = 2 cubic meters of clay or shale removed
1.0 A.P. + 10 units (15 Min.) = .1 cubic meters of rock cut or removed

Note that the removal of rock represents cutting into or working with stone rather than simply lifting and moving rocks from point to point. This work is predicated on the proper artifacts, and may be speeded up or slowed down by the particular hardness, condition, and age of the rock itself.

LIFTING Lifting occurs all the time, and a certain minor amount of lifting is included in the LIFE SUPPORT ACTIVITY POINTS which the player expends automatically every day. For anything more strenuous than ocassionally sitting up or hoisting food to mouth ACTIVITY POINTS must be expended in relation to the weight of the object. Modifications may be made by the game operator due to it's size or lack of convenient places to grip while lifting.

1 kilo/5 Str. x 10 + .1 unit (10 seconds) = 0.02 ACTIVITY POINTS to lift
1 kilo/4 Str. x 10 + .1 unit (10 seconds) = 0.025 ACTIVITY POINTS to lift
1 kilo/3 Str. x 10 + .1 unit (10 seconds) = 0.033 ACTIVITY POINTS to lift

5 kilos/6 Str. x 10 + .1 unit (10 sec.) = 0.083 ACTIVITY POINTS to lift
5 kilos/5 Str. x 10 + .1 unit (10 sec.) = 0.1 ACTIVITY POINT to lift
5 kilos/4 Str. x 10 + .1 unit (10 sec.) = 0.125 ACTIVITY POINTS to lift
5 kilos/3 Str. x 10 + .1 unit (10 sec.) = 0.167 ACTIVITY POINTS to lift

10 kilos/7 Str. x 10 + .1 unit (10 sec.) = 0.14 ACTIVITY POINTS to lift
10 kilos/6 Str. x 10 + .1 unit (10 sec.) = 0.167 ACTIVITY POINTS to lift
10 kilos/5 Str. x 10 + .1 unit (10 sec.) = 0.2 ACTIVITY POINTS to lift
10 kilos/4 Str. x 10 + .1 unit (10 sec.) = 0.25 ACTIVITY POINTS to lift
10 kilos/3 Str. x 10 + .1 unit (10 sec.) = 0.33 ACTIVITY POINTS to lift

20 kilos/7 Str. x 10 + .1 unit (10 sec.) = 0.29 ACTIVITY POINTS to lift
20 kilos/6 Str. x 10 + .1 unit (10 sec.) = 0.33 ACTIVITY POINTS to lift
20 kilos/5 Str. x 10 + .1 unit (10 sec.) = 0.4 ACTIVITY POINTS to lift
20 kilos/4 Str. x 10 + .1 unit (10 sec.) = 0.5 ACTIVITY POINTS to lift
20 kilos/3 Str. x 10 + .1 unit (10 sec.) = o.67 ACTIVITY POINTS to lift

50 kilos/7 Str. x 10 + .1 unit (10 sec.) = 0.7 ACTIVITY POINTS to lift
50 kilos/6 Str. x 10 + .1 unit (10 sec.) = 0.8 ACTIVITY POINTS to lift
50 kilos/5 Str. x 10 + .1 unit (10 sec.) = 1.0 ACTIVITY POINTS to lift
50 kilos/4 Str. x 10 + .1 unit (10 sec.) = 1.25 ACTIVITY POINTS to lift
50 kilos/3 Str. x 10 + .1 unit (10 sec.) = 1.67 ACTIVITY POINTS to lift

CARRYING Player and non-player characters are always lugging around a bunch of stuff with them, and the question of how many ACTIVITY POINTS are required to take it all comes up frequently. These readings are broken down into two types of outcomes, the forst indicating the ACTIVITY POINT costs when the individual must carry the object or objects in his/her arms or on the shoulders or head. The second result indicates the ACTIVITY POINT cost when an individual has the object fastened to his/her body, in his/her pockets, or in a backpack of some type. A combination of both methods of carrying will result in an ACTIVITY POINT cost somewhere between the two indicated values.

	carried	fastened
1 kilo -(2x6Str.)-(3x4End.)/10 + 100 units (2.5 Hrs.) =	negligable	negligable
5 kilos - (2x6Str.)-(3x4End.)/10 + 100 units (2.5 Hrs.) =	negligable	
10 kilos - (2x3Str.)-(3x3End.)/10 + 100 units (2.5 Hrs.) =	negligable	
20 kilos - (2x3Str.)-(3x3End.)/10 + 100 units (2.5 Hrs.) =	.5 A.P.	.2 A.P.
20 Kilos - (2x4Str.)-(3x3End.)/10 + 100 units (2.5 Hrs.) =	.3 A.P.	.1 A.P.
20 kilos - (2x5Str.)-(3x4End.)/10 + 100 units (2.5 Hrs.) =	negligable	
30 kilos - (2x3Str.)-(3x3End.)/10 + 100 units (2.5 Hrs.) =	1.5 A.P.	1 A.P.
30 kilos - (2x4Str.)-(3x3End.)/10 + 100 units (2.5 Hrs.) =	1.3 A.P.	.9 A.P.
30 kilos - (2x5Str.)-(3x4End.)/10 + 100 units (2.5 Hrs.) =	0.8 A.P.	.5 A.P.
50 kilos - (2x3Str.)-(3x3End.)/10 + 100 units (2.5 Hrs.) =	3.5 A.P.	2.5 A.P.
50 kilos - (2x4Str.)-(3x3End.)/10 + 100 units (2.5 Hrs.) =	3.3 A.P.	2.0 A.P.
50 kilos - (2x5Str.)-(3x4End.)/10 + 100 units (2.5 Hrs.) =	2.8 A.P.	1.5 A.P.

Carrying is the most frequently consulted of the advanced CONSTITUTION formula because of the interplay between Strength and Endurance. Formula which use two or more SUB-VALUES are difficult to approximate or estimate and for this reason the game operator may want to frequently double check any estimates against the precise ACTIVITY POINT costs indicated by the formula. The negligable result indicates that the number of ACTIVITY POINTS required to carry the object or objects are to small to be measured within the LEGACY rules.

PUSHING AND PULLING Resistence is the primary factor, but both Strength and Endurance are involved. I reccomend that the resistence of any given object in the game which the players are likely to want to push or pull be determined and the examples be worked out for each type of pushed or pulled object. There are to many variables for examples here to mean very much.

THROWING This formula indicates how far an object may be thrown rather than if it hits anything once it has left the hand, bow, catapult, ot whatever. The targeting rules are included on page 47 of the CONSTITUTION SUB-SECTION.

A.P.x10	Str.	Dex.	Kilos	Dist.	A.P.x10	Str.	Dex.	Kilos	Dist.
1	4	4	.5	16 meters	1	4	4	1	8 m
2	4	4	.5	24 meters	2	4	4	1	12 m
3	4	4	.5	32 meters	3	4	4	1	16 m
4	4	4	.5	40 meters	4	4	4	1	20 m
5	4	4	.5	48 meters	4	4	4	1	24 m
1	5	4	.5	18 meters	1	5	4	1	9 m
2	5	4	.5	28 meters	2	5	4	1	14 m
3	5	4	.5	36 meters	3	5	4	1	19 m
4	5	4	.5	48 meters	4	5	4	1	24 m
5	5	4	.5	56 meters	5	5	4	1	29

CLIMBING - This is another of the formulas which will have to be consulted by the game operator due to the interplay of three variables, Strength, Dexterity, and difficulty. I reccomend that the game operator establish a table for the combinations of Strength and Dexterity posessed by the players and input the level of difficulty in each situation. This will greatly reduce the time needed to compute climbing ACTIVITY POINT costs during the course of play.

Other types of work or advanced ACTIVITY POINT expenditure may be represented by the game operator either on the spur of the moment using these rules of thumb as guide lines or prior to the play of the game using the formulas and actual experience as examples. If any of these formulas or rules of thumbs seem unrealistic to you, or if you fins yourself pushing them to limits of possibility due to increases in the player characters personal abilities and characteristics you may want to redesign or replace them.

☐ - RULINGS

One of the primary reasons for a game operator and one of the most frequent tasks which s/he must perform is the making of rulings indicating the exact effect or meaning of a rule or loosely described effect in the rules. Rather than discuss it among the players and reach a concensus or write the game design company a letter with the question the game operator is on the spot to make such decisions. The flow of the game is important, and often it is more appropriate for the game operator to make a quick ruling even if it is wrong rather than halt the course of play. The game operator should make the best ruling s/he is capable of and try to be correct, but the important aspect is that the game operator feel free enough to make spur of the moment rulings and carry on with the business of playing the game.

Advice in the designers notes concerning what was intended in the design of some rules will assist the game operator in making such rulings.

☐ - DEBRIEFING

Especially important in an educational context the debriefing is the time when the game operator and the players can discuss the events or activities which occured in the game session without the pressure of outside events or environmental effects catching them of guard. The course of play is ended before the debriefing begins, and it is a discussion of what has already happened rather than a continued opportunity for additional actions and activities. Some of the things which a game operator might discuss with the players should be kept secret, and suggestions and rules describing these types of information are contained in the INFORMATION SUB-SECTION.

Debriefing is also a good time to make any necessary changes in the CHARACTER RECORD SHEETS of the players who have just completed a game session. Some game operators prefer to do this with the players present while others prefer to do this paperwork between game sessions on their own.

☐ - RESTORATION

After a game session several types of maintainence may be required. The players may need sleep, showers, food, sex, or other types of sustainence. The room the game session was played in may require cleaning, repair, or an interior decorator, and the game operator may require a quiet place to zone out completely. These tasks and actions should be resolved, and the game operator, players, and room can proceed to gather strength for the next game session.

These aspects of the operation of a scenario or campaign should stear the game operator and the players in the right direction. I have attempted to cover all of the major areas of preparation and knowledge required to operate a role assumption game, but I'm afraid that the task has not been well enough explored or studied for a truly complete listing of what to do. Each game operator must find within him or her self a smattering of patience and common sense in order to fill in the cracks of these or any other existing role assumption game system, but the rewards which may be obtained through the exploration of and contact with role assumption games is great. The non-precision of the rules and circumstances of play are challenges to the game operator's creativity and ingenuity. The purpose of the LEGACY game system is to retain some of this opportunity for independent creation on the part of the game operator while easing the burden from the staggering size of the missing portions of other game systems.

LEGACY has been described by some gamers as the "MISSING MODULES" to most of the existing role assumption games. By this they mean that several fundimantal portions of the role assumption game have been omitted from every other role assumption game that has been published, and that at least some of them are contained in the LEGACY game system.

3.41 INTENTIONALITY

One of the most innovative and least understandable aspects of the LEGACY game system is INTENTIONALITY. Roughly defined INTENTIONALITY is a motivational force which tends to influence the likelyhood of things happening. When associated with an individual INTENTIONALITY signifies that the likelyhood of that individual initiating an action or activity is increased, and that the likelyhood of that action or activity having a certain outcome is also increased. When associated with an object ot artifact INTENTIONALITY signifies the importance of that object as a nexus or focal point of some impending action or activity. Essentially it indicates the wampeter without giving away the identity of the karass.

Many of the implications ofINTENTIONALITY are not discussed or included in these rules, but sufficient information is present to simulate the motivational behavior of large groups of non-player characters and explain the large number of self initiated actions associated with player characters. These rules should be considered optional, and though I feel that they add significantly to the interest and value of a role assumption game other game operators may not agree with me.

3.41.1 THE INTENTIONALITY VALUE

INTENTIONALITY is measured and discussed in discrete factors which indicate a degree or amount of INTENTIONALITY present in an object or individual. The table below indicates the relative significance of varying levels of INTENTIONALITY.

INTENTIONALITY	DESCRIPTION	DIE ROLL EFFECTS
0	An individual that posesses a basic 1 in 1,000 chance of initiating an action significant to the course of play. An object which is not a nexus at all.	none
1	An individual that posesses a basic 1 in 100 chance of initiating an action significant to the course of play. An object which is a potential nexus.	+2
2	An individual that posesses a basic 1 in 90 chance of initiating an action significant to the course of play. An object which is becoming a nexus.	+5
3	An individual that posesses a basic 1 in 75 chance of initiating an action significant to the course of play. An object which is a secondary nexus.	+10
4	An individual that posesses a basic 1 in 50 chance of initiating an action significant to the course of play. An object which is a +1 secondary nexus.	+20
5	An individual that posesses a basic 1 in 10 chance of intiating an action significant to the course of play. An object which is a +2 secondary nexus. Player character.	+30
6-9	An individual with a constant chance of initiating an action significant to the course of play. An object which is a +3,+4,+5, or +6 nexus.	+50
10+	An individual or an object which is a primary nexus.	+100

The chance of initiating a significant action can be determined by the role of percentile dice, or it may be reflected in a direct and automatic assumption of action initiation as in the case of 1,000 sentients with an INTENTIONALITY of 0. During each unit of time one of the 1,000 sentients would initiate an action significant to the course of play. Of course significant to the course of play only means noticable within the game. The exact action of the individual must be determined by the game operator.

A secondary or primary nexus indicates an object or individual which may add to a specific type of die roll or to die rolls which tend to increase the likelyhood of a specific event occuring.

The other die roll effects not related to a nexus are overall die roll modifiers and effect every die roll which that character must make for the duration of the effects of the INTENTIONALITY.

3.41.2 INTENTIONALITY DIE ROLL MODIFICATIONS

Any character, wether player or non-player, that posesses an INTENTIONALITY greater than zero but less than ten also posesses a universal die roll modifier which increases every die roll by a specific amount as shown on the table on the opposite page. The effect of this addition is intended to be positive. In certain circumstances such as Dexterity SUB-VALUE die rolls either the numbers needed to cause negative and positive effects must be inverted or the INTENTIONALITY die roll modifier must temporarily become a subtraction rather than an addition. Which of these two solutions is used is left ot the descretion of the game operator. This die roll modifier applies to all die rolls which are made by that character for as long as the individuals INTENTIONALITY remains at that level. If it falls the die roll modifier is reduced a corresponding amount as indicated on the table on the opposite page. If it rises the die roll also rises a corresponding amount until the INTENTIONALITY of an individual reaches or exceeds ten. At this point that individual ceases to posess the universal die roll modifier and becomes a nexus subject to the INTENTIONALITY NEXUS rules listed below.

3.41.3 INTENTIONALITY NEXUS

An object which is associated with an INTENTIONALITY greater than one or an individual with an INTENTIONALITY equal to or greater than ten is considered an INTENTIONALITY NEXUS. INTENTIONALITY NEXUS have the following characteristics and effect die rolls in the following manner.

1. Each INTENTIONALITY NEXUS exists only as long as the conditions of 3.14.3 are met.

2. Each INTENTIONALITY NEXUS is described by a statement of effect which indicates the nature and type of die rolls it effects or situation it strives to bring about. This statement describes the entire effects of the INTENTIONALITY NEXUS and no effect not listed there may be implemented by the game operator or the players.

3. The INTENTIONALITY NEXUS are divided into two types, the secondary nexus and the primary nexus. A secondary nexus may become a primary nexus over time by increasing it's rating. A primary nexus may degenerate into a secondary nexus or even fade completely away.

4. A secondary nexus must have a simple and limited statement of effect In otherwords the effects of a secondary nexus must be simple, single minded, and straight forward. The statement of effect for a secondary nexus can usually be determined by players without undue difficulty.

5. A primary nexus must have a complex or multi-faceted statement of effect. In other words the effects of a primary nexus must be several, inter-related, and intricate. The statement of effect for a primary nexus should be difficult or impossible for a player to guess or determine.

6. The statement of effect for an INTENTIONALITY NEXUS is kept secret by the game operator. The player may try to guess what it is, but the game operator is not required to respond to these guesses unless they are made in combination with the precognition ability.

3.41.4 CREATING STATEMENTS OF EFFECT FOR INTENTIONALITY NEXUS

The game operator must establish a series of general INTENTIONALITY trends or currents at the same time s/he is initially designing and creating the game environment and other aspects of the scenario or campaign. These INTENTIONALITY currents should be defined so as to indicate the general directions in which the game operator wishes the game to go. This does not mean that the game will actually go in that direction, only that there will be increases in die rolls and actions initiated by non-player characters in support of that trend or direction for the game.

These statements of effect can concern virtually any possibility inherent in the LEGACY or other game system, but the general evolutionary themes are important and should be represented to at least a small degree. These themes are; A trend towards increased biological specialization to increase the chances of organism survival due to closer adaption and tighter hold on ecological niches, a trend towards increased brain to body weight ratio among preditors, a tendency towards survival and supremecy of the fittest, and a trend towards the increasing centralization or concentration of sentience to improve the groups overall chances for survival through mutual defense and adaptation.

Other frequently used INTENTIONALITY statements of effect involve the aquisition and use of specific ability sequences. When Psychic Ability is part of a campaign there is often a trend towards it discovery or posession. Other abilities described under the CHARISMA rules may also be associated with particular flows of INTENTIONALITY.

EXAMPLE: A non-player character has an INTENTIONALITY of 1. The game operator may roll percentile dice each unit or multiple of one unit to determine wether or not that non-player has initiated an action significant to the course of the game. A double zero would show this. At the same time that the game operator occasionally checks for an independent action from this non-player character s/he also adds two (+2) to every die roll that non-player must roll representing the universal die roll modifier associated with that amount of intentionality.

This now means that the nonplayer character has a 3% chance of making an independent action due to the addition of two to the game operators die roll to check the non-player for action initiation. Let's say that a 98 is rolled for a 100 unit (2.5 hour) period of time. 98 + 2 = 100 which is sufficient to trigger an indipendent action, and this game operator has constructed a table to aid in determining the type of independent action that the non-player will take. Dice are rolled again, and the game operator finds that the non-player has made a reversal in decision or atitude. Since this particular non-player character was working for some player characters at the time it can be assumed that the change is probably connected with the non-players contact with the players. This does not have to be the case, but if some other atitude or decision was reversed it would have to be one which would significantly effect the course of play. In the instance of the non-player character changing his/her mind about working for player characters the game operator might determine that the non-player has simply quit, or perhaps caused some act of vandalism or sabotague. Different game operator may want to determine this in different ways, but I reccomend a roll of percentile dice with the lower numbers representing negative effects to the player characters and higher numbers indicating more positive effects to the player characters.

EXAMPLE: A player character with an INTENTIONALITY of 12 is being partially directed and steered by an unknown statement of effect for a PRIMARY INTENTIONALITY NEXUS. The player has noticed that his/her ability to recognize and avoid poisonous plants has increased, and that his/her general appreciation for plants and their value seems to have been enhanced. Clearly the player is recieving die roll modifications as high as +100 for certain types of situations, but s/he is as yet uncertain of what these are. The major clue seems to be that they involve plants.

The game operator has access to the INTENTIONALITY NEXUS STATEMENT OF EFFECT, which reads;

This PRIMARY INTENTIONALITY NEXUS focuses on the plants of the DARKLOUD family and represents the likelyhood that someone will discover the non-poisonous and benaficial medical uses of the DARKLOUD MATT VINE. This will be reflected in an increased awarness and likelyhood of recognizing plants of the DARKLOUD family as well as an urge or compulsion to question the generally held opinion that all DARKLOUD plants are poisonous and should be uprooted and destroyed.

Clearly this more complete information gives the game operator a concise set of circumstances to apply the +100 addition to die rolls. Another aspect of a player character achieving primary nexus status is the elimination of his/her universal die roll modifier. It may be regained if the players INTENTIONALITY sinks below 10. But individuals or objects with INTENTIONALITIES of ten or higher are always polarized and focused on some particular trend or current of INTENTIONALITY as interpereted by the statement of effect.

3.41.5 OTHER INTENTIONALITY CHARACTERISTICS

Certain of these nexus statement of effects are reoccuring and may be described by a shorter and more compact method. In the case of commonly occuring INTENTIONALITY currents colors are often assigned to represent the general or specific nature of the INTENTIONALITY current. Below are listed several colors and their approximate categories of INTENTIONALITY effect.

WHITE	- Enthalpy, the concentration of energy, life force.	BLACK	- Entropy, the distribution of energy, ageing of universe, decay.
GREEN	- Relating to the aquisition or improvement of abilities.	BLUE	- Associated with evolution.
RED	- related to the development of social organization, culture.	YELLOW	- Associated with individual aquisition of power.

COLLECTED TABLES SECTION

HUMAN

CON. Value	CON. Level	ACTIVITY POINTS
0	Death	0
1-5	Extremely Poor	7
6-20	Poor	15
21-80	Average	20
81-95	Good	25
96-100	Exceptional	32
101-200	Extreme	40

EXTREMELY POOR CONSTITUTION LEVEL

Die Roll	Result
1-10	Sensory deprivation
11-25	Missing body part
26-50	Deformation
51-70	Defect
71-80	Disease
81-90	Mutation
91-97	No effect
98-99	1 CON. SPECIAL CAPABILITY
100	3 CON. SPECIAL CAPABILITIES
101+	Special mutation

EXCEPTIONAL CONSTITUTION LEVEL

Die Roll	SPECIAL CAPABILITY	Die Roll Modifier
1-5	1	-5
6-15	1	-1
16-40	1	+1
41-70	1	+3
71-90	1	+4
91-100	2	-1
101+	2	+1

EXTREME CONSTITUTION LEVEL

Die Roll	SPECIAL CAPABILITIES	Die Roll Modifier
1-10	3	-3
11-30	3	-1
31-60	3	0
61-80	3	+1
81-95	4	-1
96-100	4	+1
101+	5	-2

CONSTITUTION SPECIAL CAPABILITIES

Name	Basic ACT.	Basic ABIL.	Dis.	Recov.	Conv.
X Str.	+10	+1	-	-	+1 Str.
X End.	+5	+2	-	-	+1 End.
X Dex.	+3	+5	-	-	+1 Dex.
Spec. Dis.	-	-Specific	+30	-	+1 Dis.
Gen. Dis.	-	- Generic	+20	-	+1 Dis.
X Dis.	-	-	+10	-	+2 Dis.
X Phy.	+1	METABOLIC STATUS	-	+10	+1 Phy.

CONSTITUTION SUB-VALUES

CON. Level	Str.	End.	Dex.	Dis.	Phy.
Death	0	0	0	0	0
Extrem. Poor	2	2	2	2	3
Poor	3	3	3	3	4
Average	4	4	4	4	4
Good	5	5	5	4	4
Exceptional	6	6	5	4	5
Extreme	7	6	5	5	5

KEYA-TEU

CON. Value	CON. Level	ACTIVITY POINTS
0	Death	0
1-10	Extremely Poor	9
11-30	Poor	18
31-70	Average	25
71-90	Good	30
91-120	Exceptional	33
121-200	Extreme	35

EXTREMELY POOR CONSTITUTION LEVEL

Die Roll	Result
1-5	Total paralysis
6-10	Partial paralysis
11-20	Missing body part
21-40	Deformation
41-70	Defect
71-90	Disease
91-96	Variation
97-99	Mutation
100	No effect

EXCEPTIONAL CONSTITUTION LEVEL

Die Roll	CAPABILITY OR TALENT	Die Roll Modifier
1-10	2	-1
11-30	2	+1
31-50	2	+3
51-80	2	+5
81-99	3	+1
100	3	+3

EXTREME CONSTITUTION LEVEL

Die Roll	CAPABILITY OR TALENT	Die Roll Modifier
1-20	5	-1
21-50	5	+1
51-70	5	+2
71-85	5	+3
86-95	6	0
96-99	6	+2
100	7	-1

CONSTITUTION SPECIAL CAPABILITIES

Name	Basic ACT.	Basic ABIL.	Dis.	Recov.	Conv.
X Str.	+10	+1	-	-	+1 Str.
X End.	+5	+2	-	-	+1 End.
X Dex.	+3	+5	-	-	+1 Dex.
Spec. Dis.	-	-Specific	+30	-	+1 Dis.
Gen. Dis.	-	- Generic	+20	-	+1 Dis.
X Dis.	-	-	+10	-	+2 Dis.
X Phy.	+1	METABOLIC STATUS	-	+10	+1 Phy.

CONSTITUTION SPECIAL TALENTS

ACTIVITY POINT RESERVE - 1.0 ACTIVITY POINT on demand.

CYCLICAL DISEASE RESISTENCE - +50/10 units, +30/30 units, +20/60 units, +10/2 days, +5/7 days, +1/20 days, 0/70 days, -10/901 days (2.47 years) go to beginning.

ACTIVITY POINT AWARNESS - Secret /1-10/ die roll indicates percentage margin of error. Operator discretion in reporting approximate ACTIVITY POINT judgement.

COLLECTED TABLES SECTION

STRENGTH CONSTITUTION SUB-VALUE

SUB-VALUE	.01u	.1u	1u	10u	100u	1day	10days
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.0	0.1	0.1	0.3	1.0	5.0	30.0
2	0.1	0.2	0.5	1.0	3.0	10.0	80.0
3	0.2	0.5	1.0	4.0	10.0	20.0	180.0
4	0.3	1.0	2.0	6.0	15.0	25.0	240.0
5	0.5	1.5	3.0	9.0	20.0	30.0	280.0
6	0.8	2.0	5.0	15.0	25.0	35.0	320.0
7	1.0	2.3	7.0	20.0	30.0	40.0	370.0
8-9	1.2	2.5	10.0	25.0	40.0	50.0	450.0

ENDURANCE TRACK

1 FULL REST (E2+) RESTED (E1)	**2** FULL REST (E3+) RESTED (E2)	**3** FULL REST (E4+) RESTED (E2+)	**4** FULL REST (E6+) RESTED (E4+)	**5** FULL REST (E9+) RESTED (E5+)	**6** RESTED (E6+) E1=Ftg. 1	**7** RESTED (E7+) E1=Ftg. 2 E2=Ftg. 1	**8** RESTED (E9+)
9 E1=Ftg. 3 E2=Ftg. 2 E3=Ftg. 1	**10** E1=Ftg. 4	**11** E1=Ftg. 5 E2=Ftg. 3	**12** E4=Ftg. 1	**13** E2=Ftg. 4 E3=Ftg. 2	**14** E2=Ftg. 5	**15** E5=Ftg. 1	**16** E3=Ftg. 3
17 E4=Ftg. 2	**18** E3=Ftg. 4	**19** E3=Ftg. 5	**20** E5=Ftg. 2	**21** E4=Ftg. 3	**22** E6=Ftg. 1	**23**	**24** E4=Ftg. 4
25 E7=Ftg. 1	**26** E4=Ftg. 5	**27** E6=Ftg. 2	**28** E5=Ftg. 3	**29** E8=Ftg. 1	**30**	**31** E9=Ftg. 1	**32** E5=Ftg. 4 E7=Ftg. 2
33 E6=Ftg. 3 E10=Ftg 1	**34** E5=Ftg. 5 E8=Ftg. 2 E11=Ftg 1	**35** E7=Ftg. 3 E9=Ftg. 2	**36** E6=Ftg. 4 E10=Ftg 2 E11=Ftg 2	**37** E7=Ftg. 4 E8=Ftg. 3	**38** E6=Ftg. 5 E7=Ftg. 5 E9=Ftg. 3 E10=Ftg 3	**39** E8=Ftg. 4 E11=Ftg 3	**40** E8=Ftg. 5 E9=Ftg. 4 E10=Ftg 4 E11=Ftg 4

DISEASE RESISTENCE TABLE

SUB-VALUE	Flora Para.	Fauna Para.	Bact. Dis.	Viral Dis.	Cell. Disr.	Meta. Imba.	Nutr. Deff.
0	-100	-100	-100	-200	-500	-10	-50
1	-40	-50	-20	-50	-100	0	-25
2	-10	-20	-5	-10	-50	+1	-10
3	-4	-10	-2	-5	-20	+5	-3
4	-1	-5	-1	-2	-10	+10	-1
5	0	-1	0	-1	-5	+25	0
6	+1	0	+2	0	-3	+50	+1
7	+3	+1	+6	+1	-2	+100	+5
8	+10	+5	+15	+5	-1	+200	+10
9	+30	+10	+20	+10	0	+300	+25
10	+50	+30	+30	+20	+1	+400	+50
11	+60	+35	+35	+35	+3	+500	+100
12	+66	+39	+43	+39	+6	+600	+200
13	+69	+40	+45	+40	+10	+700	+300
14	+70	+40	+45	+40	+15	+800	+400
15	+70	+40	+45	+40	+19	+900	+500

KEYA-TEU CONSTITUTION SUB-VALUE TABLE

CON. LEVEL	Str.	End.	Dex.	Dis.	Phy.
Death	0	0	0	0	0
Extrem. Poor	1	2	2	1	2
Poor	2	4	3	2	3
Average	5	5	4	3	4
Good	6	6	5	4	5
Exceptional	7	6	6	5	5
Extreme	8	7	6	5	6

DEXTERITY EFFECTS TABLE

SUB-VALUE		High Skill	Skill	Un Skill	Life Supp.	Comm-unic.	Surv-ival
0	pos.	1%	1%	1%	1%	2%	5%
	neg.	200%	100%	90%	25%	50%	75%
1	pos.	1%	1%	1%	1%	3%	7%
	neg.	100%	95%	80%	10%	20%	50%
2	pos.	1%	1%	1%	1%	4%	10%
	neg.	99%	90%	60%	5%	10%	25%
3	pos.	2%	1%	1%	2%	5%	15%
	neg.	95%	70%	30%	2%	5%	10%
4	pos.	3%	2%	1%	3%	7%	25%
	neg.	90%	40%	10%	1%	2%	5%
5	pos.	5%	3%	1%	5%	10%	40%
	neg.	80%	10%	5%	.1%	1%	2%
6	pos.	7%	5%	2%	7%	13%	60%
	neg.	60%	.5%	2%	.1%	1%	1%
7	pos.	8%	6%	3%	8%	14%	90%
	neg.	30%	2%	1%	.1%	1%	1%
8	pos.	9%	6%	4%	9%	14%	95%
	neg.	5%	1%	1%	.1%	1%	1%
9	pos.	10%	7%	5%	10%	15%	99%
	neg	1%	1%	1%	.1%	1%	1%

PHYSICAL EFFICIENCY INDUCED CHANGES

CON. LEVEL	Str.	End.	Dex.	Dis.	CON. VALUE	A.P. AVAIL.
Death	0/0	0/0	0/0	0/0	0/0	0/0
Extr. Poor	-2/+1	-1/+1	-3/+2	-1/+2	-10/+10	-2/+3
Poor	-1/+1	-1/+1	-2/+2	-1/+2	-5/+5	-1/+2
Average	-1/+1	-1/+1	-1/+2	-1/+2	-2/+3	0/+1
Good	-1/+1	-1/+1	-2/+2	-2/+2	-5/+5	-1/+2
Exception.	-2/+2	-2/+2	-3/+2	-3/+3	-10/+10	-2/+3
Extreme	-2/+2	-3/+3	-3/+2	-2/+5	-25/+20	-3/+5

CONSTITUTION ACTIVITY STATES - BASIC

ACTIVITY STATE	A.P.	C.F.	TIME	OUTPUT
Foraging	1	1+	100u	1 foraging fact.
Hunting + Gather.	3+	5+	100u	1 H + G factor
Cultivation	2+	2	100u	1 Cult. factor
Herding	1+	3+	100u	1 Herding fact.
Harv. + Preserv.	2	4	100u	1 Harv. + Preserv.
Stationary	0	0	variable	lack of movement
Migration	1	2	100u	2 Kms. - .2 M.P.
Trek	2	3	100u	5 Kms. - .5 M.P.
Hike	3	4	100u	10 Kms. - 1 M.P.
March	5	5	100u	25 Kms. - 2.5 M.P.
Trail Breaking	variable - see TERRAIN EFFECTS CHART			
Load Bearing	1+	0+	variable	Per 10 kilos

ACTIVITY STATE	A.P.	C.F.	TIME	OUTPUT
Light Work	1	4+	100u	1 work Fact
Medium work	2	4+	100u	1 work Fact.
Heavy work	5	5+	100u	1 work Fact.
Communications	0+	1+	variable	variable
Meditation	0+	1+	variable	variable
Exploration	1+	5+	100u	variable
Practice and training - varies depending on subject				
Recreation	1+	0+	variable	variable
Fabrication	1	1+	10u	1 fabricat. Fact.
Recovery	See RECOVERY rules for costs and effec			
Life Support	(1) already prepaid by players			
SURVIVAL	varies depending on action required			

COLLECTED TABLES SECTION

HUMAN INTELLIGENCE TABLES

INT. VALUE	INT. LEVEL	CONCENTRATION FACTORS	LEAP OF LOGIC DIE ROLL MODIFIER
0	Mindless	0	-100
1-10	Extremely poor	4	+5
11-30	Poor	7	+10
31-70	Average	10	+40
71-90	Good	12	+60
91-100	Exceptional	15	+75
101+	Extreme	19	+80

INT. LEVEL	Mem.	Abs.	Prt.	Lea.	Ref.
Ext. Poor	1	1	1	1	3
Poor	2	2	3	2	4
Average	4	3	5	3	5
Good	5	4	5	4	5
Exceptional	5	5	5	5	5
Extreme	6	6	6	6	6

KEYA-TEU INTELLIGENCE TABLES

INT. VALUE	INT. LEVEL	CONCENTRATION FACTORS
0	death	0
1-5	Extremely poor	1
6-20	Poor	4
21-80	Average	9
81-95	Good	15
96-120	Exceptional	18
121+	Extreme	20

INT. LEVEL	Mem.	Abs.	Prt.	Lea.	Ref.
Ext. Poor	2	0	1	2	4
Poor	2	1	2	2	4
Average	3	3	4	3	5
Good	4	4	4	5	5
Exceptional	5	4	5	5	6
Extreme	6	5	5	6	6

Memory SUB-VALUE	words retained
0	0
1	5
2	15
3	25
4	40
5	50
6	60
7	70
8	80
9	90
10	unlimited

TENS CHARISMA VALUE	MEANING
0	no charisma
1	almost no charisma
2	low charisma
3	sig. charisma
4	some charisma
5	important charisma
6	major charisma
7	1-10+ or 2-6+
8	1-15+ or 2-10+
9	unlisted 10+

ONES CHARISMA VALUE	MEANING
0	no sub-values
1	salience
2	leadership
3	empathy
4	flora ability
5	fauna ability
6	2 sub-values
7	3 sub-values
8	4 sub values
9	unlisted

CHARISMA INITIAL DETERMINATION

DIE ROLL	TENS VALUE	ONES VALUE
1-10	0	0
11-30	1	0
31-50	2	0
51-56	2	2
57-60	3	0
61-80	3	1
81-90	3	3
91-95	4	1
96	4	2
97	4	3
98	4	4
99	4	5
100	5	6

DECAY RATES

TIME UNITS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
.01	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-	-	-	-	-	-	-
.1	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-	-	-	-	-	-
1	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-	-	-	-	-
10	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-	-	-	-
100	X	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-	-	-
1000	X	X	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-	-
10 days	X	X	X	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-	-
100 days	X	X	X	X	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-	-
1,000 days	X	X	X	X	X	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%	-
10,000 days	X	X	X	X	X	X	X	X	X	50%	40%	30%	20%	10%	5%	3%	1%
274 years	X	X	X	X	X	X	X	X	X	X	50%	40%	30%	20%	10%	5%	3%
2,740 years	X	X	X	X	X	X	X	X	X	X	X	50%	40%	30%	20%	10%	5%
27,000 years	X	X	X	X	X	X	X	X	X	X	X	X	50%	40%	30%	20%	10%

ACTIVITY POOLING MULTIPLIER TABLE

DIE ROLL	2	3	4	5	6-9	10-15	16-25	26-50	51-100	101+
1-10	90%	80%	70%	60%	50%	40%	30%	20%	10%	1%
11-30	95%	90%	80%	75%	70%	60%	50%	40%	30%	20%
31-50	99%	95%	90%	80%	75%	70%	60%	50%	40%	30%
51-70	101%	99%	95%	90%	80%	80%	75%	75%	50%	50%
71-90	105%	101%	99%	99%	90%	90%	90%	90%	75%	75%
91-100	110%	105%	101%	101%	99%	99%	99%	99%	90%	90%
101+	150%	125%	110%	101%	101%	101%	101%	101%	99%	99%

CHARACTER REACTION ROLL

DIE ROLL	RESULT
0	hostile
1-10	no reaction
11-30	not impressed
31-70	=50%/50%
71-90	favorable
91-100	"I'll take it!"
101+	sold!

BASIC SEQUENCE OF PLAY - COMBAT

1. All eligable players place ENABLERS face down
2. 2 minutes to select opponents, otherwise free
3. ENABLERS revealed, activity and ability rolled
4 Sequence is repeated

ATTACK/DEFENSE DIFFERENTIAL	effects
-20 to -11	+5 defenders attack value
-10 to -6	+3 defenders attack value
-5 to -1	+1 defenders attack value
0	99% WOUND
1	98% WOUND

ADVANCED SEQUENCE OF PLAY - COMBAT

1. Place ENABLERS and allocate AP and CF secretly
2. reveal ENABLERS and allocations of AP and CF
3. Dexterity effects on combat attack, defense values
4. INTERVENTION ENABLERS played if desired
5. ATTACK/DEFENSE DIFFERENTIALS calculated and dice rolled to determine effects.
6. Repeat sequence.

COLLECTED TABLES SECTION

BASIC CONSTITUTION DIE ROLL MODIFIERS

CON. LEVEL	ACTIVITY MOD.	ABILITY MOD.
DEATH	-1,000	-1,000
EXT. POOR	0	0
POOR	+20	+10
AVERAGE	+50	+30
GOOD	+70	+40
EXCEPTIONAL	+80	+45
EXTREME	+90	+50

INTIAL METABOLIC STATUS TABLES

CON. LEVEL	HUMAN	KEYA-TEU
DEATH	0	0
EXT. POOR	3	4
POOR	4	6
AVERAGE	5	7
GOOD	6	8
EXCEPTIONAL	7	9
EXTREME	8	10

RESISTENCE VALUE TABLE

RESISTENCE VALUE	EXPLANATION
0	Absence of resistence of any type
1	Limited friction, low resistence
2	Wheels, normal resistence for carts
3	moderate friction, old carts
4	5%+ surface dragging on ground
5	substantial friction
6+	increasingly severe friction

CLIMBING DIFFICULTY TABLE

DIFFICULTY VALUE	EXPLANATION
0	Normal movement rules used
1	Steep, unobstructed, stairs
2	some obstruction, steep stairs
3	obstructed, ladder, easy tree
4	light cliff, hard tree
5	bad trees, medium cliff
6	light mountains, harder than 5
7	heavy mountains, blocked
8	Heavy cliffs, broken or rough
9	worse than 8
10	shear cliffs with handholds, mountain climbing at it's most difficult.

DISEASE OCCURENCE TABLE - BASIC

DIE ROLL	FLORA PARA.	FAUNA PARA.	BACT-ERIAL	VIRAL	CELL-ULAR	META-BOLIC
1-10	55+	45+	35+	55+	75+	50+
11-30	75+	60+	50+	70+	90+	60+
31-70	90+	80+	70+	95+	99+	80+
71-95	95+	90+	80+	99+	100	95+
96-99	99+	95+	90+	100	-	99+
100+	100	99+	95+	-	-	100

THROWING DISTANCE RULES OF THUMB

AP x 10	Str.	Dex.	kilos	DISTANCE	TARGET MODIFIER
1	4	4	.5	16 meters	+5
2	4	4	.5	24 meters	+4
3	4	4	.5	32 meters	+3
4	4	4	.5	40 meters	+2
5	4	4	.5	48 meters	+1
1	5	4	.5	18 meters	+5
3	5	4	.5	36 meters	+3
5	5	4	.5	56 meters	-
1	4	4	1	8 meters	+5
2	4	4	1	12 meters	+4
3	4	4	1	16 meters	+4
4	4	4	1	20 meters	+3
5	4	4	1	24 meters	+3

ADVANCED ACTIVITY POINTS AVAILABLE TABLE

METABOLIC STATUS - HUMAN

HUMAN STRENGTH SUB-VALUE	0	1	2	3	4	5	6	7	8	9
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
1	0.0	0.0	0.1	0.5	1.0	5.0	6.0	7.0	7.5	8.0
2	0.0	0.1	0.5	3.0	6.0	10.0	12.0	13.0	14.0	15.0
3	0.1	0.5	2.0	5.0	10.0	15.0	18.0	20.0	22.0	23.0
4	0.2	1.0	4.0	9.0	14.0	20.0	25.0	29.0	32.0	34.0
5	0.3	2.0	5.0	10.0	15.0	25.0	30.0	39.0	42.0	43.0
6	0.4	3.0	7.0	15.0	20.0	30.0	35.0	40.0	44.0	47.0
7	0.5	5.0	10.0	20.0	30.0	35.0	40.0	45.0	49.0	52.0
8	0.5	7.0	15.0	30.0	40.0	45.0	49.0	52.0	54.0	55.0
9	0.5	10.0	20.0	40.0	45.0	49.0	52.0	54.0	55.0	56.0

METABOLIC STATUS - KEYA-TEU

	0	1	2	3	4	5	6	7	8	9
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	1.0	5.0
2	0.0	0.0	0.0	0.1	0.3	0.7	1.5	5.0	10.0	15.0
3	0.0	0.0	0.1	0.5	1.0	4.0	9.0	15.0	30.0	40.0
4	0.0	0.1	0.7	2.0	5.0	9.0	15.0	20.0	32.0	41.0
5	0.0	0.2	1.0	4.0	8.0	15.0	15.0	30.0	33.0	41.0
6	0.0	0.3	2.0	5.0	10.0	20.0	30.0	32.0	33.0	40.0
7	0.0	0.5	3.0	10.0	20.0	30.0	31.0	32.0	35.0	37.0
8	0.1	1.0	5.0	10.0	21.0	31.0	32.0	33.0	35.0	36.0
9	0.2	2.0	6.0	12.0	23.0	35.0	34.0	33.0	32.0	31.0
10	0.3	3.0	9.0	15.0	25.0	40.0	35.0	30.0	25.0	20.0
11	0.5	5.0	10.0	20.0	30.0	40.0	30.0	20.0	10.0	5.0
12	0.5	7.0	15.0	25.0	40.0	30.0	20.0	10.0	5.0	3.0
13+	0.5	10.0	20.0	35.0	45.0	30.0	20.0	10.0	5.0	2.0

ADVANCED ACTIVITY POINT RULES OF THUMB

DIGGING

0.1 AP+1 unit (1.5 Min.) = 500 centimeters cubed loose soil
0.2 AP+1 unit (1.5 Min.) = 500 centimeters cubed packed soil
0.3 AP+1 unit (1.5 Min.) = 500 centimeters cubed clay, shale
0.5 AP+1 unit (1.5 Min.) = 50 centimeters cubed rock cut
1.0 AP+10 unit (15 Min.) = 5 meters cubed loose soil
1.0 AP+10 unit (15 Min.) = 3 meters cubed packed soil
1.0 AP+10 unit (15 Min.) = 2 meters cubed clay or shale
1.0 AP+10 unit (15 Min.) =.1 meters cubed rock cut, removed

LIFTING

1 kilo/5 Str.x10+.1 unit (10 Sec.) = 0.02 ACTIVITY POINTS
1 kilo/4 Str.x10+.1 unit (10 Sec.) = 0.03 ACTIVITY POINTS
1 kilo/3 Str.x10+.1 unit (10 Sec.) = 0.03 ACTIVITY POINTS
5 kilo/6 Str.x10+.1 unit (10 Sec.) = 0.08 ACTIVITY POINTS
5 kilo/5 Str.x10+.1 unit (10 Sec.) = 0.10 ACTIVITY POINTS
5 kilo/4 Str.x10+.1 unit (10 Sec.) = 0.13 ACTIVITY POINTS
5 kilo/3 Str.x10+.1 unit (10 Sec.) = 0.17 ACTIVITY POINTS
10 kilo/7 Str.x10+.1 unit (10 Sec.) = 0.14 ACTIVITY POINTS
10 kilo/6 Str.x10+.1 unit (10 Sec.) = 0.17 ACTIVITY POINTS
10 kilo/5 Str.x10+.1 unit (10 Sec.) = 0.20 ACTIVITY POINTS
10 kilo/4 Str.x10+.1 unit (10 Sec.) = 0.25 ACTIVITY POINTS
10 kilo/3 Str.x10+.1 unit (10 Sec.) = 0.33 ACTIVITY POINTS
20 kilo/7 Str.x10+.1 unit (10 Sec.) = 0.29 ACTIVITY POINTS
20 kilo/6 Str.x10+.1 unit (10 Sec.) = 0.33 ACTIVITY POINTS
20 kilo/5 Str.x10+.1 unit (10 Sec.) = 0.40 ACTIVITY POINTS
20 kilo/4 Str.x10+.1 unit (10 Sec.) = 0.50 ACTIVITY POINTS
20 kilo/3 Str.x10+.1 unit (10 Sec.) = 0.67 ACTIVITY POINTS
50 kilo/7 Str.x10+.1 unit (10 Sec.) = 0.70 ACTIVITY POINTS
50 kilo/6 Str.x10+.1 unit (10 Sec.) = 0.80 ACTIVITY POINTS
50 kilo/5 Str.x10+.1 unit (10 Sec.) = 1.00 ACTIVITY POINTS
50 kilo/4 Str.x10+.1 unit (10 Sec.) = 1.25 ACTIVITY POINTS
50 kilo/3 Str.x10+.1 unit (10 Sec.) = 1.67 ACTIVITY POINTS

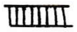
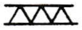
CARRYING

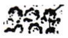
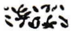
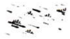
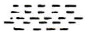
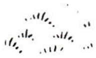
carried fastened
20 kilo-(2x3 Str.)-(3x3 End.)/10+100 units = .5AP .2AP
20 kilo-(2x4 Str.)-(3x3 End.)/10+100 units = .3AP .1AP
20 kilo-(2x5 Str.)-(3x4 End.)/10+100 units = negligable
50 kilo-(2x3 Str.)-(3x3 End.)/10+100 units = 3.5AP 2.5AP
50 kilo-(2x4 Str.)-(3x3 End.)/10+100 units = 3.3AP 2.0AP
50 kilo-(2x5 Str.)-(3x4 End.)/10+100 units = 2.8AP 1.5AP

TERRAIN MAPPING SYMBOLS

COLOR	NAME	TRAIL BREAKING COST
LIGHT BLUE	CONTINENTAL SHELF	Water travel ENABLER
MEDIUM BLUE	FRESH WATER	Water travel ENABLER
DARK BLUE	OCEAN	Water travel ENABLER
YELLOW	WASTELAND DESERT	x2
BROWN	BARREN	x1
LIGHT GREEN	LIGHT VEGETATION	x1
MEDIUM GREEN	MEDIUM VEGETATION	x2
DARK GREEN	HEAVY VEGETATION	x3
WHITE	SNOW/ICE	x2
GREY	HIGH ALTITUDE VEGETATION	x1
BLACK	IMPASSIBLE	Movement not permitted
RED	GEOLOGICAL ACTIVITY	variable

HEX SIDE COLORS AND SYMBOLS

COLOR	NAME	TO CROSS	TO TRAVEL ALONG
BLUE	RIVER	variable	ENABLER
YELLOW	BEACH	x1	x1
BROWN	BARREN	x1	x1
LIGHT GREEN	LIGHT VEGETATION	x1	x1
MEDIUM GREEN	MEDIUM VEGETATION	x1	x2
DARK GREEN	HEAVY VEGETATION	x2	x3
WHITE	GLACIER	x2	x2
GREY	HIGH RIDGE	x2	x1
BLACK	IMPASSIBLE	Movement no permitted	
RED	GEOLOGICAL ACTIVITY	variable	
- - - - -	TRAIL	as color	x½
⌣	ROAD	as color	x¼
→	DIRECTION OF FLOW	as color	as color
	CLIFF	ENABLER	as color
	SLOPE	x2	as color

SYMBOL	NAME	TRAIL BREAKING COST
⬡	CLEAR	x1
⌬	FERTILE ABUNDANT	x2
▭	ROUGH	x2
▭ ▭	BROKEN	x3
□	MOUNTAINOUS	x4
	WOODED	x1
	JUNGLE	x2
	MARSH/SWAMP	X3
	CULTIVATED	x1
■ ■ ■ ■	ISLANDS	Water travel ENABLER
	GRASSLAND SAVANAH	x1
- - -	TRAIL	x½
⌒	ROAD	x¼
1	ALTITUDE	x1
○	POPULATION CENTER	x1
△	ADDITIONAL COST	variable

FORAGING AND HUNTING AND GATHERING VALUES AND MODIFIERS

TERRAIN TYPE	WATER	LOST	HUNTING AND GATHERING
OCEAN, SHELF	0%	variable	FISHING ENABLER
FRESH WATER	100%	variable	FISHING ENABLER
DESERT, BARREN	5%	25%	2%
VEGETATION	10%	50%	5%
HIGH ALTITUDE	5%	10%	3%
SNOW, ICE	100%	75%	1%
FERTILE, ABUNDANT	20%	25%	10%
ROUGH, BROKEN	10%	50%	5%
MOUNTAINOUS	15%	75%	10%
WOODED	5%	25%	10%
JUNGLE, MARSH	25%	100%	25%
GRASSLAND	2%	5%	4%
TRAIL	30%	-10%	20%
ROAD	0%	-50%	-50%
POPULATION CENTER	100%	-100%	-100%

ATTACK/DEFENSE DIFFERENTIAL	EFFECTS
2	95% WOUND
3	90% WOUND, 99% MAJOR WOUND
4	80% WOUND, 96% MAJOR WOUND
5	70% WOUND, 91% MAJOR WOUND
6	60% WOUND, 91% MAJOR WOUND
7	50% WOUND, 91% MAJOR WOUND
8	99% COMA, 40% WOUND, 81% MAJOR WOUND
9	98% COMA, 40% WOUND, 76% MAJOR WOUND
10	96% COMA, 30% WOUND, 70% MAJOR WOUND
11	91% COMA, 30% WOUND, 70% MAJOR WOUND
12	81% COMA, 25% WOUND, 60% MAJOR WOUND
13	76% COMA, 20% WOUND, 50% MAJOR WOUND
14	71% COMA, 20% WOUND, 50% MAJOR WOUND
15	61% COMA, 10% WOUND, 50% MAJOR WOUND
16-20	51% COMA, 5% WOUND, 40% MAJOR WOUND
21+	51% COMA, 5% WOUND, 30% MAJOR WOUND

INFORMATION LEVELS

INFO. LEVEL	EXPLANATION
*0	The lowest obtainable level of information. Non significant to the game.
*1	Hints and clues
*2	Basic, enough to do something
*3	Increased usefullness
*4	Assessment of topic usefullness
*5	Threshold, fill in some gaps
*6	Proof the topic goes beyond *5
*7	More hints and clues
*8	Expansion of clues, usefull
*9	Relatively complete knowledge
*10	Thrshold, probable total knowledge

LACK OF RATIONS

TIME	EFFECTS
1 day	FATIGUE LEVEL 1
2 day	-1 META. STATUS, -2 CF
3 day	-1 CON. LEVEL, -1 CF
5 day	-1 META. STATUS
7 day	-1 META. STATUS

when the METABOLIC STATUS drops to one the CONSTITUTION levels start to go until death

LACK OF WATER

DAYS	E. Poor	Poor	Avrg.	good
1	-2	-1	-	-
2	-3	-1	-1	-
3	death	-1	-1	-1
4	death	-3	-2	-2
5	death	death	-3	-2
6	death	death	death	death

Subtractions are from the METABOLIC STATUS of victim

TERRAIN TYPE	1	2	3	4	5-6	7-9	10-14	15-20	21+
DESERT, BARREN	+0	+0	+0	+0	+1	+2	+3	+4	+5
LIGHT VEGETAT.	+0	+0	+1	+2	+5	+10	+15	+18	+20
MEDIUM VEGETAT.	+0	+1	+3	+6	+10	+15	+20	+23	+25
HEAVY VEGETAT.	+1	+5	+10	+15	+25	+40	+60	+70	+75
FERTILE, ABUNDANT	+10	+15	+25	+40	+60	+80	+90	+95	+99
ROUGH	+0	+0	+1	+5	+10	+15	+10	+10	+10
BROKEN	+1	+3	+5	+10	+5	+5	+5	+5	+5

CULTIVATION RESULTS - VERY ABSTRACT AND DIRECTED

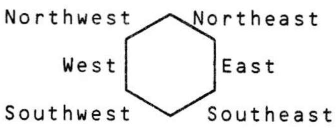
TIME(DAYS)	LOUSY	VERY P.	POOR	GOOD	BETTER	IDEAL
1-10	X	X	X	X	1	2
11-30	X	X	1	3	5	10
31-60	2	5	10	25	40	70
61-90	5	10	40	50	75	100
91-150	8	30	70	100	150	300
151+	10	50	100	200	300	500

Output in rations. Multplied by number of 10,000 SQUARE METER plots under cultivation. 2-10 Cult. factors per day per plot required to maintain.

WIND DIRECTION AND INTENSITY

PLANETARY SURFACE LOCATION	PRESSURE	NORTHWEST	WEST	SOUTHWEST	SOUTHEAST	EAST	NORTHEAST
POLAR CAP	HIGH	1-10 / -3	11-20 / -1	21-70 / +1	71-80 / -2	81-90 / -3	91-100 / -5
POLAR FRONT	HIGH/LOW	1-15 / +2	16-30 / +3	31-50 / +5	51-70 / +4	71-85 / +3	86-100 / +1
MIDDLE HEMISPHERE		1-10 / -3	11-20 / -3	21-30 / -5	31-40 / -1	41-50 / -2	51-100 / +1
HIGH PRESSURE BAND		1-10 / +1	11-20 / +2	21-45 / +3	46-55 / +1	56-65 / +2	66-100 / +3
LOWER NORTHERN HEMISPHERE		1-5 / -2	6-10 / +1	11-85 / +3	86-90 / -2	91-95 / -1	96-100 / -3
LOWER SOUTHERN HEMISPHERE		1-75 / +3	76-80 / +1	81-85 / -1	86-90 / -3	91-95 / -1	96-100 / -2
EQUATOR	LOW	1-30 / -1	31-40 / -5	41-70 / -1	71-80 / -5	81-90 / -5	91-100 / -5

DIE ROLL	CHANGE IN DIRECTION	DURATION OF CHANGE
1	1 counterclock	1 period
2	1 clock	1 period
3	1 counterclock	2 periods
4	1 clock	2 periods
5	2 counterclock	1 period
6	2 clock	1 period
7	3 counterclock	1 period
8	3 clock	1 period
9	2 counterclock	4 periods
10	2 counterclock	4 periods



WIND INTENSITY SPEED IN KILOMETERS

1	BREEZE	1-5 Kms. per hecto-unit	1-7.5 mph
2	STIFF BREEZE	6-10 Kms. per hecto-unit	7.6-15 mph
3	LIGHT WIND	11-20 Kms. per hecto-unit	16-30 mph
4	MODERATE WIND	21-30 Kms. per hecto-unit	31-45 mph
5	WIND	31-40 Kms. per hecto-unit	46-60 mph
6	HEAVY WIND	41-50 Kms. per hecto-unit	61-75 mph
7	GALE	51+ Kms. per hecto-unit	76+ mph
8+	STORM		

NAME ____________________ DESCRIPTION ____________________

AGE _____ _____ SEX _____ ____________________

HEIGHT _____ WEIGHT _____ ____________________

CONSTITUTION: _____ INTELLIGENCE: _____ CHARISMA: _____

ACTIVITY POINTS AVAILABLE CONCENTRATION FACTORS AVAILABLE

_______________ ____________________

CONSTITUTION SPECIAL CAPABILITIES METABOLIC STATUS

____________________ __________

____

ADDITIONAL INFORMATION AND REMARKS: ____________________

____

____

STATUS

☐ - RECOVERY
☐ - RESTED
☐ - NORMAL
☐ - FATIGUE I
☐ - FATIGUE II
☐ - FATIGUE III
☐ - WOUND
☐ - DISEASE

GAME OPERATOR SPACE

NAME ____________________ DESCRIPTION ____________________

AGE _____ _____ SEX _____ ____________________

HEIGHT _____ WEIGHT _____ ____________________

CONSTITUTION: _____ INTELLIGENCE: _____ CHARISMA: _____

ACTIVITY POINTS AVAILABLE CONCENTRATION FACTORS AVAILABLE

_______________ ____________________

CONSTITUTION SPECIAL CAPABILITIES METABOLIC STATUS

____________________ __________

____

ADDITIONAL INFORMATION AND REMARKS: ____________________

____

____

STATUS

☐ - RECOVERY
☐ - RESTED
☐ - NORMAL
☐ - FATIGUE I
☐ - FATIGUE II
☐ - FATIGUE III
☐ - WOUND
☐ - DISEASE

GAME OPERATOR SPACE

NAME ____________________ DESCRIPTION ____________________

AGE _____ _____ SEX _____ ____________________

HEIGHT _____ WEIGHT _____ ____________________

CONSTITUTION: _____ INTELLIGENCE: _____ CHARISMA: _____

ACTIVITY POINTS AVAILABLE CONCENTRATION FACTORS AVAILABLE

_______________ ____________________

CONSTITUTION SPECIAL CAPABILITIES METABOLIC STATUS

____________________ __________

____

ADDITIONAL INFORMATION AND REMARKS: ____________________

____

____

STATUS

☐ - RECOVERY
☐ - RESTED
☐ - NORMAL
☐ - FATIGUE I
☐ - FATIGUE II
☐ - FATIGUE III
☐ - WOUND
☐ - DISEASE

GAME OPERATOR SPACE

DISEASE HISTORY: ______________________

SKILLS, TECHNIQUES, ARTIFACTS: __________

PERSONAL INTERACTIONS AND EVENTS PLOT:

ADVANCED PLAYER RECORD SHEET - ☐

DISEASE HISTORY: ______________________

SKILLS, TECHNIQUES, ARTIFACTS: __________

PERSONAL INTERACTIONS AND EVENTS PLOT:

ADVANCED PLAYER RECORD SHEET - ☐

DISEASE HISTORY: ______________________

SKILLS, TECHNIQUES, ARTIFACTS: __________

PERSONAL INTERACTIONS AND EVENTS PLOT:

ADVANCED PLAYER RECORD SHEET - ☐

ADVANCED PLAYER CHARACTER RECORD SHEET

NAME ____________________ DESCRIPTION ____________________

AGE ______ ____ SEX ____________ ____________________

HEIGHT ______ WEIGHT ____________ ____________________

STATUS

☐ - DEATH
☐ - COMA
☐ - UNCON.
☐ - RECOVERY
☐ - FULL REST
☐ - RESTED
☐ - NORMAL
☐ - FATIGUE 1
☐ - FATIGUE 2
☐ - FATIGUE 3
☐ - FATIGUE 4
☐ - FATIGUE 5
☐ - WOUND
☐ - MAJOR WOUND
☐ - DISEASE

PERSONAL ABILITIES AND CHARACTERISTICS

CONSTITUTION: _____	INTELLIGENCE: _____	CHARISMA: _____
Str. _____	Mem. _____	Sal. _____
End. _____	Abs. _____	Ldr. _____
Dex. _____	Prt. _____	Emp. _____
Dis. _____	Lea. _____	___. _____
Phy. _____	Ref. _____	___. _____
Potentials: _____	Potentials: _____	Potentials: _____
Actualizat: _____	Actualizat: _____	Actualizat: _____

ACTIVITY POINTS AVAILABLE

____

FACTORS AVAILABLE

____

CONSTITUTION SPECIAL CAPABILITIES

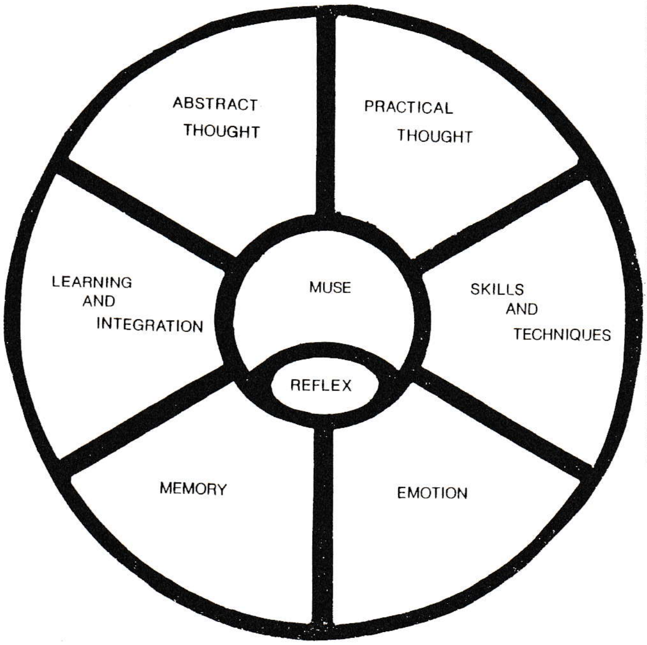
____
____
____
____
____

METABOLIC STATUS

____

DISEASE HISTORY	Dis. modifier
____________	________
____________	________
____________	________

CONCENTRATION FACTOR ALLOCATIONS



ENDURANCE TRACK

1 FULL REST (E2+) RESTED (E1)	**2** FULL REST (E3+) RESTED (E2)	**3** FULL REST (E4+) RESTED (E2+)	**4** FULL REST (E6+) RESTED (E4+)	**5** FULL REST (E9+) RESTED (E5+)	**6** RESTED (E6+) E1=Ftg. 1	**7** RESTED (E7+) E1=Ftg. 2 E2=Ftg. 1	**8** RESTED (E9+)
9 E1=Ftg. 3 E2=Ftg. 2 E3=Ftg. 1	**10** E1=Ftg. 4	**11** E1=Ftg. 5 E2=Ftg. 3	**12** E4=Ftg. 1	**13** E2=Ftg. 4 E3=Ftg. 2	**14** E2=Ftg. 5	**15** E5=Ftg. 1	**16** E3=Ftg. 3
17 E4=Ftg. 2	**18** E3=Ftg. 4	**19** E3=Ftg. 5	**20** E5=Ftg. 2	**21** E4=Ftg. 3	**22** E6=Ftg. 1	**23**	**24** E4=Ftg. 4
25 E7=Ftg. 1	**26** E4=Ftg. 5	**27** E6=Ftg. 2	**28** E5=Ftg. 3	**29** E8=Ftg. 1	**30**	**31** E9=Ftg. 1	**32** E5=Ftg. 4 E7=Ftg. 2
33 E6=Ftg. 3 E10=Ftg 1	**34** E5=Ftg. 5 E8=Ftg. 2 E11=Ftg 1	**35** E7=Ftg. 3 E9=Ftg. 2	**36** E6=Ftg. 4 E10=Ftg 2 E11=Ftg 2	**37** E7=Ftg. 4 E8=Ftg. 3	**38** E6=Ftg. 5 E7=Ftg. 5 E9=Ftg. 3 E10=Ftg 3	**39** E8=Ftg. 4 E11=Ftg 3	**40** E8=Ftg. 5 E9=Ftg. 4 E10=Ftg 4 E11=Ftg 4

This space intended for game operator

LEGACY (copyrighted 1978)

SPECIAL CONSTITUTION MODIFIERS: __________

____

____

____

SPECIAL CHARISMA MODIFIERS: __________

____

____

____

PERMANENT VALUE ALTERATION CAUSES: ______

____

____

____

PERCEPTION ABILITY ALTERATIONS: ______

____

____

____

GENETIC CAUSE, EFFECT, AND EVENTS: ______

____

____

____

____

____

SPECIAL TALENTS AND/OR ABILITIES: ______

____

____

____

____

____

PERSONAL INTERACTIONS AND EVENTS PLOT:

SPECIAL INTELLIGENCE MODIFIERS: __________

____

____

____

MEMORY: 1. __________
2. __________
3. __________
4. __________
5. __________
6. __________
7. __________
8. __________
9. __________
10. __________
11. __________
12. __________
13. __________
14. __________
15. __________
16. __________
17. __________
18. __________
19. __________
20. __________
21. __________
22. __________
23. __________
24. __________
25. __________
26. __________
27. __________
28. __________
29. __________
30. __________
31. __________
32. __________
33. __________
34. __________
35. __________
36. __________
37. __________
38. __________
39. __________
40. __________
41. __________
42. __________
43. __________
44. __________
45. __________
46. __________
47. __________
48. __________
49. __________
50. __________

PLANETARY INFORMATION SHEET

PLANET NAME:

LOCATION:

ORBITAL ZONE:

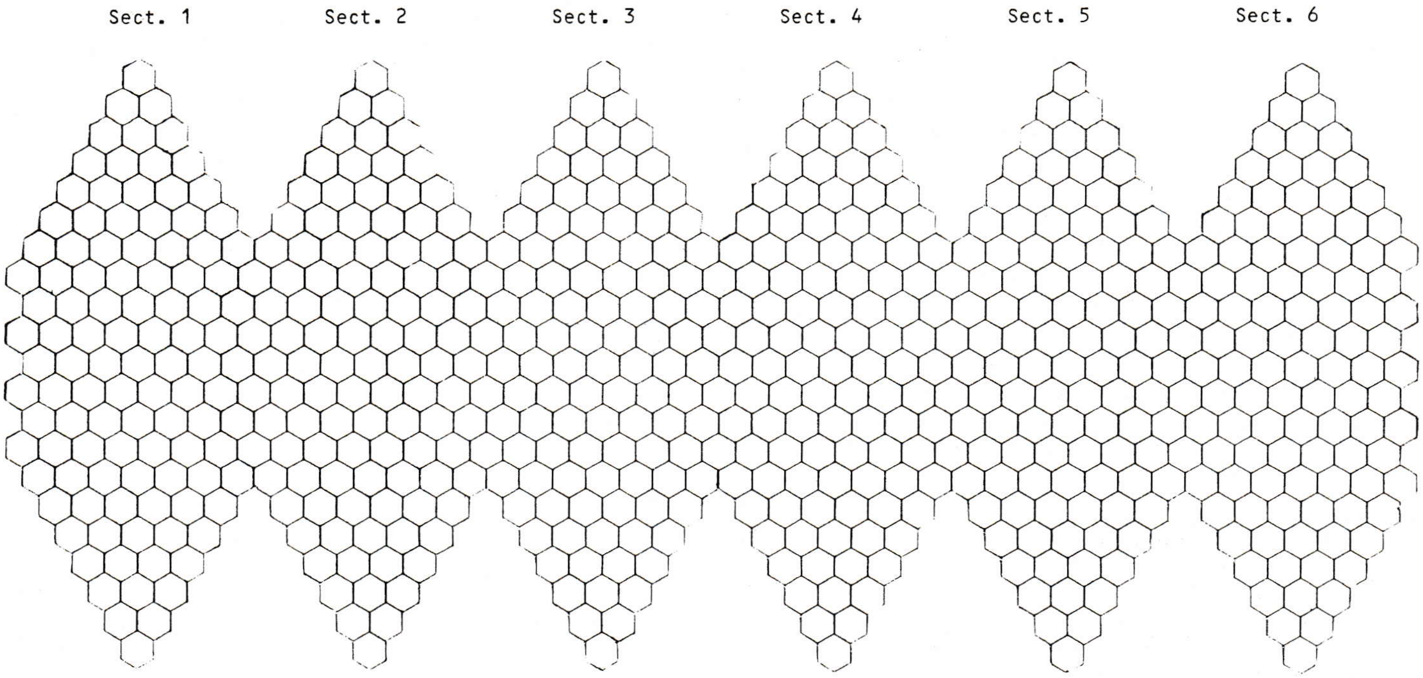
DIAMETER:

SIZE:

DISTANCE FROM PRIMARY:

PERIOD OF ROTATION:

PLANETARY SURFACE MAP - SCALE LEVEL: XI (11) 1 HEX = 1,000 Kms.



LEGACY (copyrighted 1978)

BASIC PLANETARY INFORMATION

MOONS:

ATMOSPHERE TYPE:

GEOLOGICAL TYPE:

MINERALIZATION:

ACCESABILITY:

BIONIZATION:

ADVANCED PLANETARY INFORMATION

TILT OF AXIS:

WOBBLE:

CLIMACTIC TYPE:

GEOLOGICAL PERIOD:

BIOLOGICAL ABUNDANCE:

BIOLOGICAL LETHALITY:

BIOLOGICAL COMPLEXITY:

RESOURCE INFORMATION

CLASS	ABUNDANCE	ACCESSABILITY	DESCRIP.	CLASS	ABUNDANCE	ACCESSABILITY	DESCRIPTION
I			Basic/Common Mineralization	IV			Basic/Common Flora
II			Energy type Mineralization	V			Transformed/restructered Flora
			Production Mineralization	VI			Special Flora
			Engineering Mineralization	VII			Basic/Common Fauna
			Communication Mineralization	VIII			Special Fauna
			Transport Mineralization	IX			Sentient Population

GEOLOGICAL TIME LINE

TIME INTERVAL	EVENTS
4.0 billion	
4.1 billion	
4.2 billion	
4.3 billion	
4.4 billion	
4.5 billion	
4.6 billion	
4.7 billion	
4.8 billion	
4.9 billion	
5.0 billion	

TIME INTERVAL	EVENTS
___ billion	
100 million	
200 million	
300 million	
400 million	
500 million	
600 million	
700 million	
800 million	
900 million	
___ Billion	

TIME INTERVAL	EVENTS
___ mill	
10 million	
20 million	
30 million	
40 million	
50 million	
60 million	
70 million	
80 million	
90 million	
___ million	

TIME INTERVAL	EVENTS
___ million	
1 million	
2 million	
3 million	
4 million	
5 million	
6 million	
7 million	
8 million	
9 million	
___ million	

TIME INTERVAL	EVENTS
___ million	
100 thousand	
200 thousand	
300 thousand	
400 thousand	
500 thousand	
600 thousand	
700 thousand	
800 thousand	
900 thousand	
___ million	

TIME INTERVAL	EVENTS
___ thousand	
10 thousand	
20 thousand	
30 thousand	
40 thousand	
50 thousand	
60 thousand	
70 thousand	
80 thousand	
90 thousand	
___ thousand	

PLANETARY SECTION MAP - SCALE LEVEL: XI (11)   1 HEX = 1,000 Kms.

PLANET: ________________   SECTION: ______

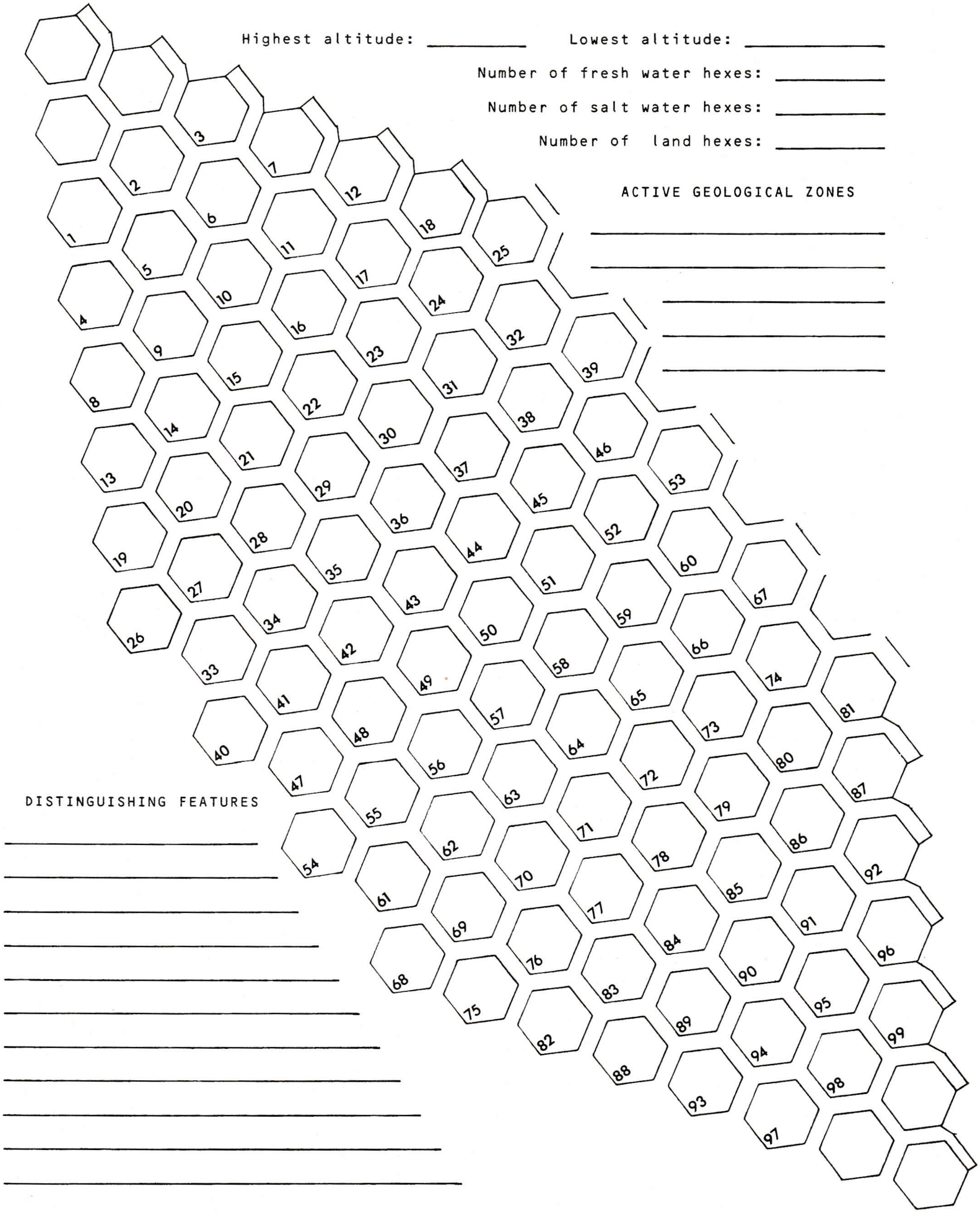
Highest altitude: ________   Lowest altitude: __________

Number of fresh water hexes: ________

Number of salt water hexes: ________

Number of land hexes: ________

ACTIVE GEOLOGICAL ZONES


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99

DISTINGUISHING FEATURES

GEOLOGICAL TIME LINE

TIME INTERVAL		EVENTS	TIME INTERVAL		EVENTS
___ thousand			___ thousand		
10 thousand			1 thousand		
20 thousand			2 thousand		
30 thousand			3 thousand		
40 thousand			4 thousand		
50 thousand			5 thousand		
60 thousand			6 thousand		
70 thousand			7 thousand		
80 thousand			8 thousand		
90 thousand			9 thousand		
___ thousand			___ thousand		

HEXES MAPPED ON THE MU (14) SCALE LEVEL

SECTION 1				SECTION 2				SECTION 3				SECTION 4				SECTION 5				SECTION 6			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
5	6	7	8	5	6	7	8	5	6	7	8	5	6	7	8	5	6	7	8	5	6	7	8
9	10	11	12	9	10	11	12	9	10	11	12	9	10	11	12	9	10	11	12	9	10	11	12

POLAR CAP - ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ - POLAR CAP

CLASS III RESOURCES

ABUNDANCE	ACCESSABILITY	LOCATION	DESCRIPTION

CLASS X RESOURCES

ABUNDANCE	ACCESSABILITY	LOCATION	DESCRIPTION

SPECIAL FEATURES AND REMARKS:

PLANETARY POLAR MAP - SCALE LEVEL: XI (11)   1 HEX = 1,000 Kms.

PLANET: ________________

Highest altitude: __________   Lowest altitude: __________   Number of land hexes: ________

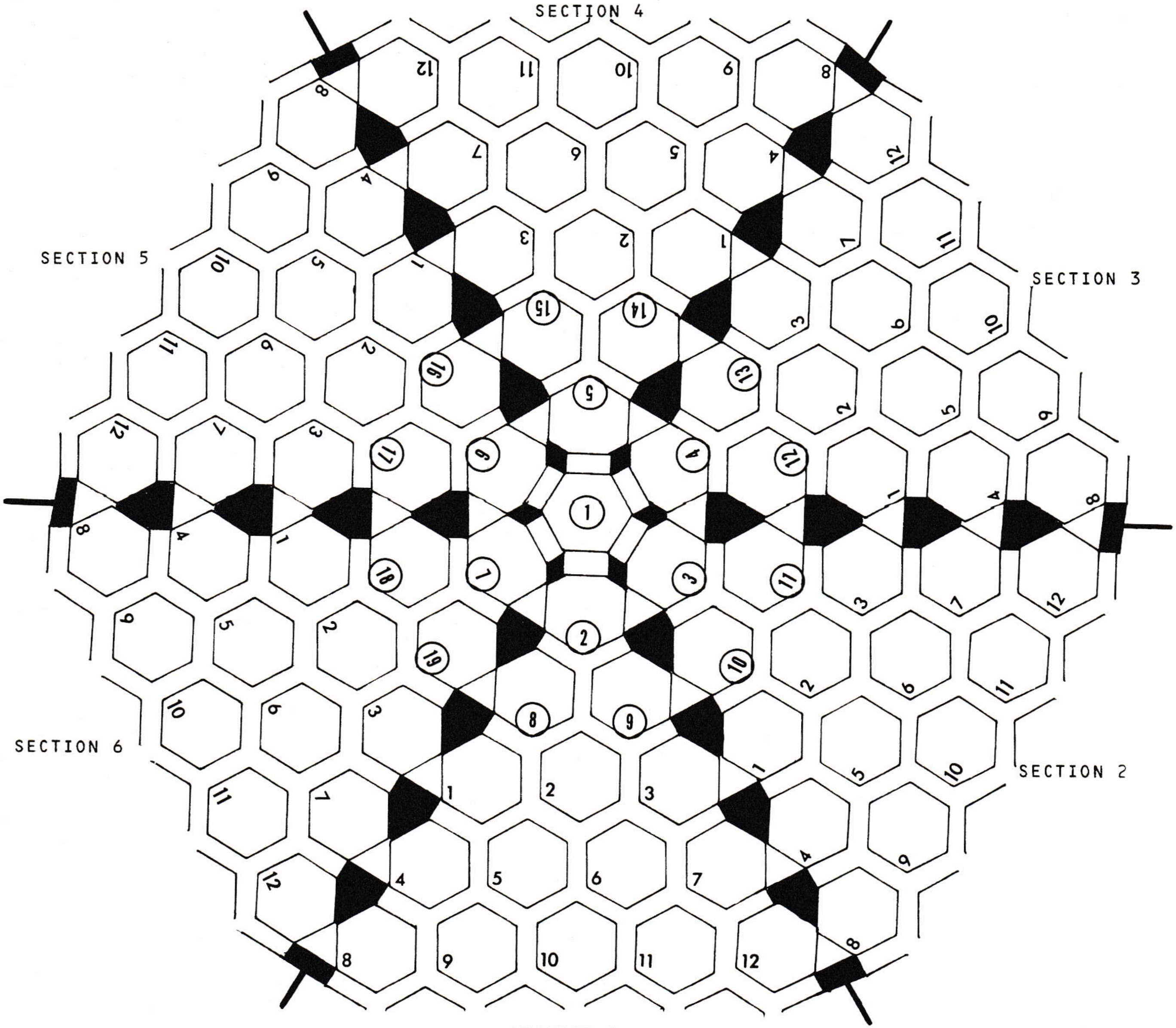
ACTIVE GEOLOGICAL ZONES

Number of salt water hexes: ________

Number of fresh water hexes: ________

NORTH POLE   SOUTH POLE

DISTINGUISHING FEATURES:


SECTION 4
SECTION 5
SECTION 3
SECTION 6
SECTION 2
SECTION 1
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
1
2
3
4
5
6
7
8
9
10
11
12

LEGACY (copyrighted 1978)

GEOLOGICAL TIME LINE

TIME INTERVAL		EVENTS	TIME INTERVAL		EVENTS
___ thousand	☐	____________	___ thousand	☐	____________
10 thousand	☐	____________	1 thousand	☐	____________
20 thousand	☐	____________	2 thousand	☐	____________
30 thousand	☐	____________	3 thousand	☐	____________
40 thousand	☐	____________	4 thousand	☐	____________
50 thousand	☐	____________	5 thousand	☐	____________
60 thousand	☐	____________	6 thousand	☐	____________
70 thousand	☐	____________	7 thousand	☐	____________
80 thousand	☐	____________	8 thousand	☐	____________
90 thousand	☐	____________	9 thousand	☐	____________
___ thousand	☐	____________	___ thousand	☐	____________

HEXES MAPPED ON THE MU (14) SCALE LEVEL

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48

49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71

72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94

95 96 97 98 99 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ north

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ south

CLASS III RESOURCES

ABUNDANCE	ACCESSABILITY	LOCATION	DEFINITION

CLASS X RESOURCES

ABUNDANCE	ACCESSABILITY	LOCATION	DEFINITION

SPECIAL FEATURES AND REMARKS:

____

____

____

PLANETARY MODULAR TERRAIN MAPPING HEXAGON - SCALE LEVEL: ____ 1 HEX = ______

PLANET: ______________ SECTION: ____________ LOCATION: ____________

Highest altitude: __________ Lowest altitude: _________ Number of land hexes: __________

ACTIVE GEOLOGICAL ZONES

Number of salt water hexes: __________

____ Number of fresh water hexes: __________

____

NORTHERN HEMISPHERE SOUTHERN HEMISPHERE

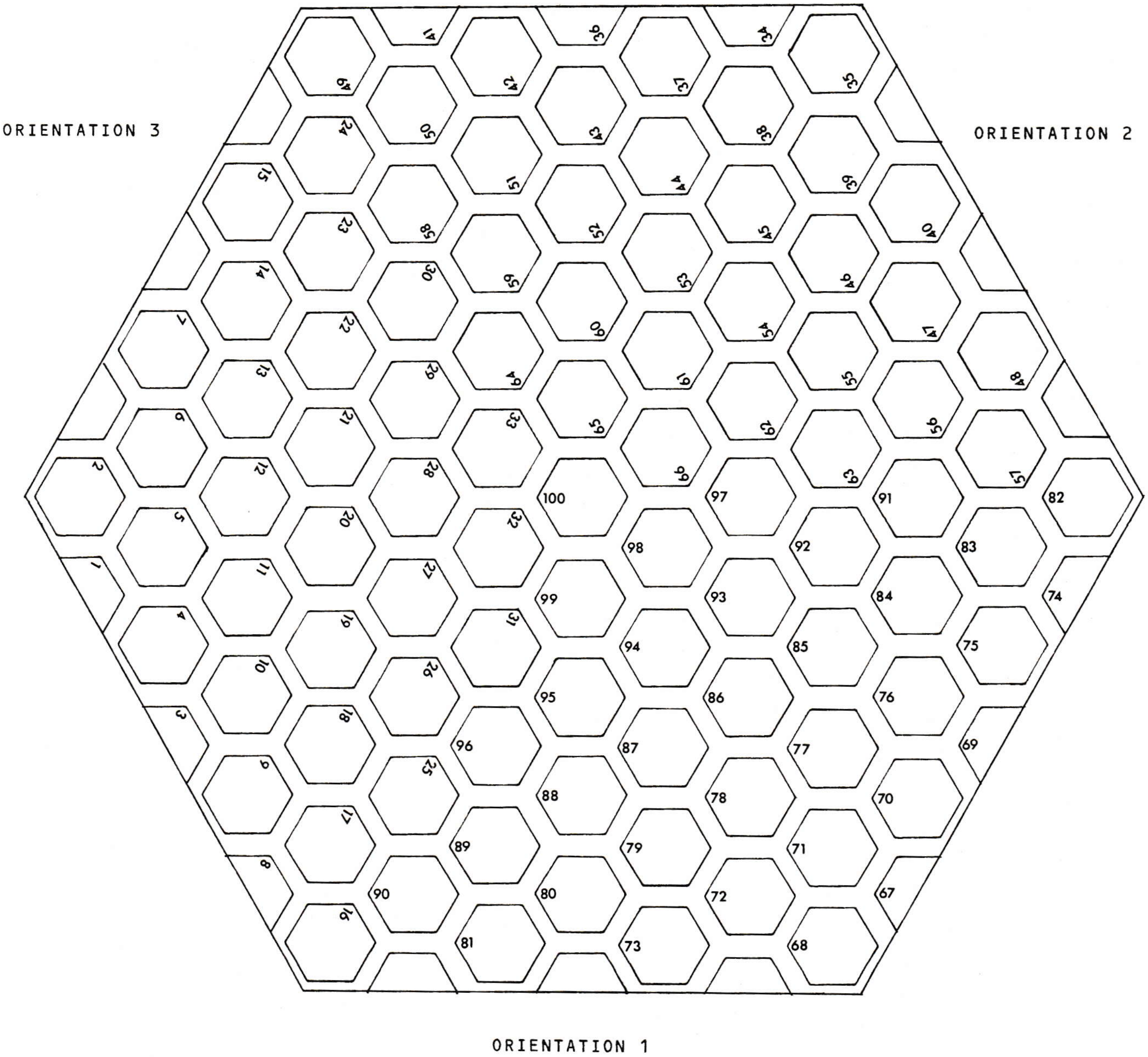
DISTINGUISHING FEATURES:

____

____

____

____


ORIENTATION 3
ORIENTATION 2
ORIENTATION 1
41 36 34
49 42 37 35
24 50 43 38
15 51 44 39
23 58 52 45 40
14 30 59 53 46
7 22 60 54 47
13 29 64 61 55 48
9 21 33 65 62 56
2 12 28 66 63 57
100 97 91 82
5 20 32
98 92 83
1 11 27
99 93 84 74
4 19 31
94 85 75
10 26
95 86 76
3 18
96 87 77 69
6 25
88 78 70
17
89 79 71
8
90 80 72 67
16
81 73 68

GEOLOGICAL TIME LINE

TIME INTERVAL		EVENTS
___ thousand		______________________
1 thousand		______________________
2 thousand		______________________
3 thousand		______________________
4 thousand		______________________
5 thousand		______________________
6 thousand		______________________
7 thousand		______________________
8 thousand		______________________
9 thousand		______________________
___ thousand		______________________

HEXES MAPPED ON THE ____ SCALE LEVEL

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	56	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

ORIENTATION: 1 2 3 other

RESOURCE TYPE AND LOCATION

CLASS	LOCATION	ACCESSABILITY	ABUNDANCE	DESCRIPTION	REMARKS

SPECIAL FEATURES AND REMARKS:

____

SYSTEM DISPERSION CHART

TITLE:

DESCRIPTION:

COLOR/TEXTURE LEGEND

=

=

=

=

=

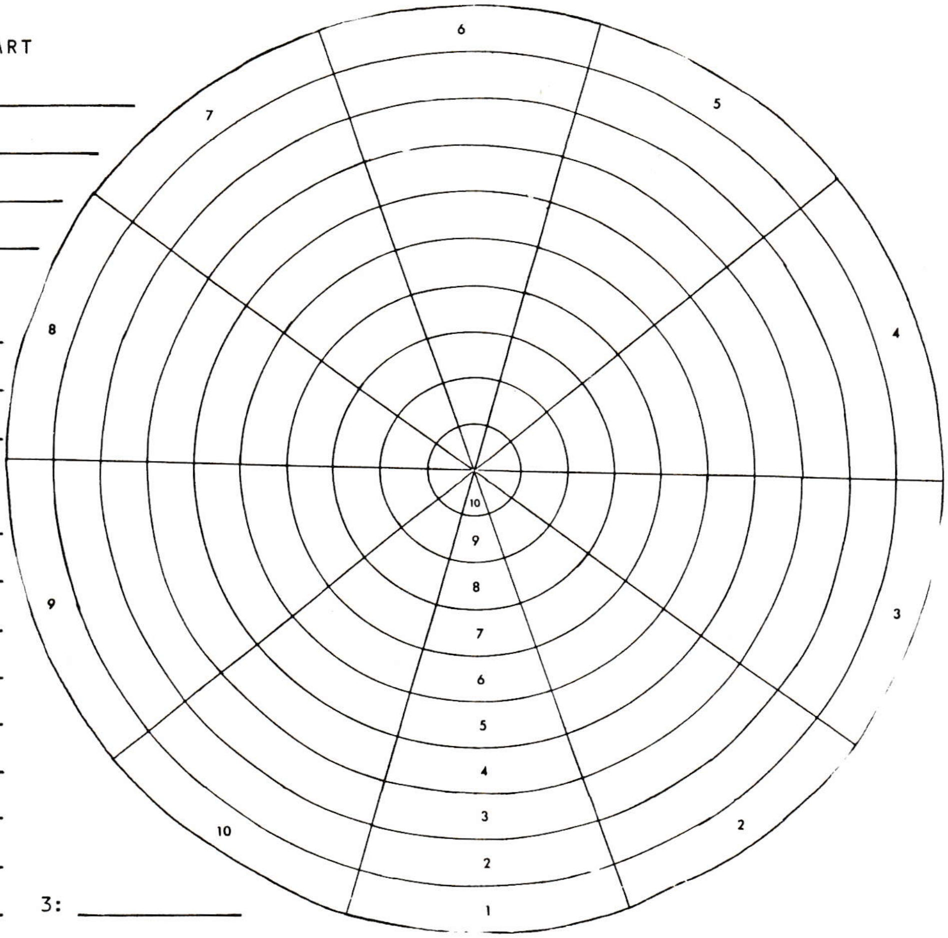
=

ALPHANUMERIC LEGEND

A:
B:
C:
D:
E:
F:
G:
H:
I:

J:
K:
L:
M:
N:
O:
P:
1:
2:

3:


6
5
4
3
2
1
10
9
8
7
10
9
8
7
6
5
4
3
2
1

SYSTEM DISPERSION CHART

TITLE:

DESCRIPTION:

COLOR/TEXTURE LEGEND

=

=

=

=

=

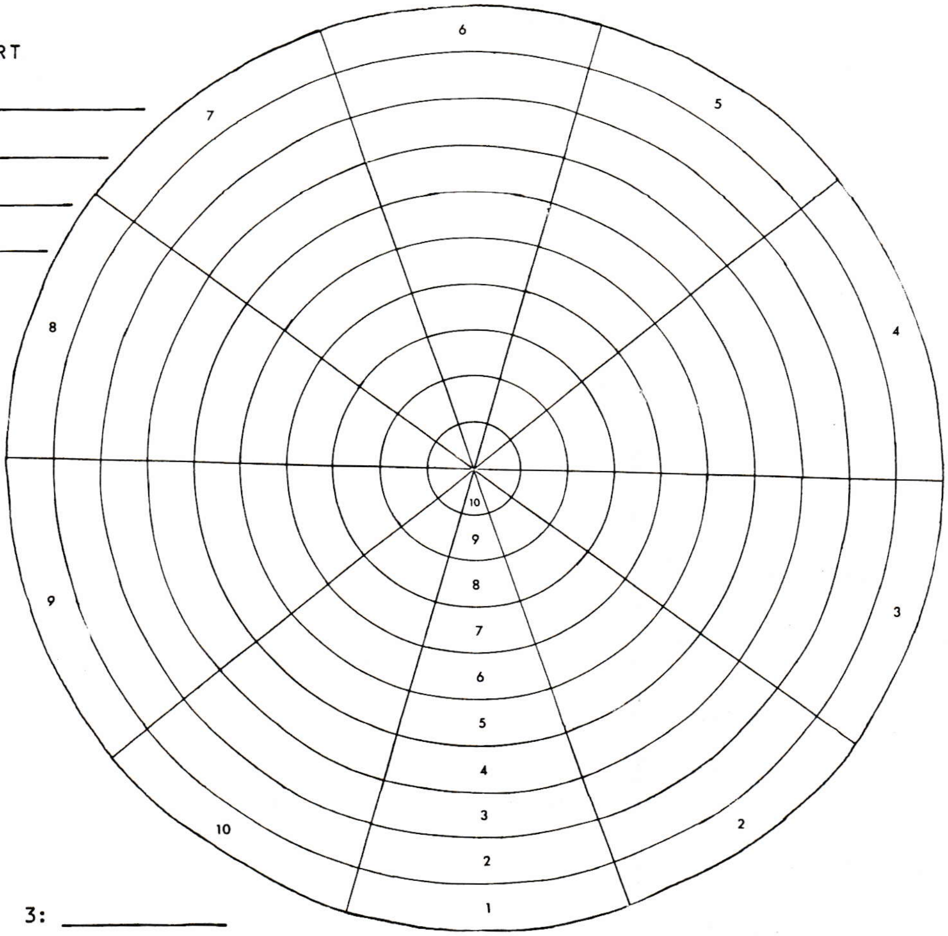
=

ALPHANUMERIC LEGEND

A:
B:
C:
D:
E:
F:
G:
H:
I:

J:
K:
L:
M:
N:
O:
P:
1:
2:

3:


6
5
4
3
2
1
10
9
8
7
10
9
8
7
6
5
4
3
2
1

UNITS:

ADVANCED TIME RECORD TRACK

	1	2	3	4	5	6	7	8	9	10
Player name Character name										
Real time - date Game time - date										
Player name Character name										
Real time - date Game time - date										
Player name Character name										
Real time - date Game time - date										

BASIC TIME TRACK

UNITS:

	1	2	3	4	5	6	7	8	9	10
Character name Game time - date										
Character name Game time - date										
Character name Game time - date										
Character name Game time - date										
Character name Game time - date										
Character name Game time - date										

Designer's Notes

The LEGACY game was constructed over a period of over three years, and the design process followed the approximate steps listed below.

INITIAL ASSESMENT: Designer determines the reason or purpose behind the creation of the game and the goals which the game is intended to reach.

RESOURCE SEARCH: The designer must examine the existing games in the area which s/he intends to work and other related areas for ideas and to determine which problems and goals have already been resolved by existing games.

DESIGN REQUIREMENTS IDENTIFICATION: The designer must identify the specific rules or components which will be necessary to reach or meet the goals set for the game in design step one. Often at this point the purposes and goals of the game are evaluated and revamped.

DESIGN LIMITATIONS: The designer must make a careful set of decisions as to which aspects of the simulated situation will not be included in the game. Having a clear picture of what must be left out of a game is just as or more important as knowing what is to be included in a game.

RESEARCH: Information concerning the situation or process to be simulated must be obtained and organized into a form which is appropriate to the needs of the game. Some games require very little research while others consist of little else.

DESIGN: The most complex and confusing step which is glossed over here due to the extensive discussion on design which is included later in these designer's notes. Roughly design represents the actual creation and construction of the game and the various playing aids required to run it.

PLAYTESTING AND EVALUATION: Once the game has assumed a tentitive form sufficient to be played the designer(s) and his/her friends or associates must sit down and try it. This is the only way to tell wether a game is working properly and doing what it was designed to do. No amount of study or reading will replace the playtest. Often the designer discovers either major errors or that the game has failed to meet the goals established in the INITIAL ASSESMANT step. This calls for a return to the design step to correct the problems.

FINAL EVALUATION AND USE: The true test of a game is if it can be given to another person who knows nothing about it, and without a word of explaination from the designer or the playtesters. If that individual can sit down, read through the game, understand it and play it correctly than it is an acceptable game. If s/he also agrees that the game accomplishes the purposes and goals established by the designer than it is a good game. If the individual also finds it interesting and fun to play than perhaps it is a great game, in which case the designer should be proud. There are very few great games available, and many of those which are were designed by the passage of hundreds or thousands of years more than the conscious intentions of the original designer.

The specific experiences we encountered in the design of the LEGACY game system organized into the progression of design steps listed above is contained and described on the following pages. Each of the design steps other than the DESIGN itself will be examined briefly in several paragraphs each. Though important to the finished product, they are substantially more self evident and understandable than the nearly impossible to articulate process of game design. The weighting of tables, causes and effects of playability determinations and the intuitive nature of many of the solutions arrived at by the designer(s) mandates that a more thorough treatment be rendered.

Participating with me in the earliest stages of the game design process, before I had decided to build a game, was a game operator or "referee" named Paul Stien who ran a very interesting and well developed DUNGEONS AND DRAGONS campaign in which I played. As Tim the Magic User I spent hundreds of hours real time and several years of game time adventuring around and accumulating levels, spells, and wealth. The entertainment and pleasure I derived from these sessions was second only to the effects they had upon my overly fertile imagination, and it is clear that without this early exposure to role assumption games and the DUNGEONS AND DRAGONS rules I would probably still be playing wargames and experiencing an empty or unsatisfied feeling somewhere in my soul. Special thanks to Paul Stien

1. INITIAL ASSESMENT: The purposes of the LEGACY game were originally concieved as being three fold; the exploration of the potentials of role assumption games, the creation of solutions to some of the questions raised by commercial role assumption games then available, and the establishment of an ongoing playtest simulation which allowed my friends and I a creative and entertaining outlet for our over fertile and under exercised imaginations.

Players would assume the roles of Humans and other aliens on an alternate planet containing the remnants of a once powerful star traveling technological civilization called the EMPIRE OF THE RISING SUN, and they would participate in adventures related to gaining personal abilities, contemporary resources, and remnants of the former civilization.

The original plan called for the adaption of an existing role assumption game onto a modular framework, freeing me of much of the initial work associated with designing a game and allowing me to add many of the required rules and information later. In this way we could start playing almost right away, and once the players started trying to do things for which there were no rules new rules could be designed and added to those already existing. This caused problems as described later, but being able to play without months of prior work made the problems seem small by comparison.

2. RESOURCE SEARCH: In June of 1975 three role assumption games were commercially available. Variations such as WARLOCK existed, but mostly they compounded the errors and problems of the other games or offered only partially worked out solutions.

En Guarde was well organized and balanced, but the roles which players could assume were limited to that of a fortune seeker living in the France of the three musketeers.

DUNGEONS AND DRAGONS was poorly organized and depended entirely on the game operator for balance and direction, but the roles which a player could assume were expanded, and many aspects of the game environments location and inhabitants were left ot the descretion of the game operator.

EMPIRE OF THE PETAL THRONE was better organized than D and D, and though many of the balance problems associated with D and D had not been solved, the variety of roles which players could assume and other positive aspects of DUNGEONS AND DRAGONS were retained. Aditionally EPT also provided a wealth of information concerning the planet on which the action of the game took place and the various inhabitants and technological artifacts with which the players could interact. Finally the EPT rules contained information relating to the culture within which the players lived, it's languages, customs, traditions, and taboos. This not only set me thinking but made it painfully obvious how necessary these types of background information were to the role assumption games.

EMPIRE OF THE PETAL THRONE was chosen as the primary source for the LEGACY game system and playtest on the basis of it's "best available for our purposes" status.

3. DESIGN REQUIREMENTS IDENTIFICATION: Role assumption games pose several unusual problems which had not been addressed in a significant fashion by the pioneering existing games. I felt that if the LEGACY game system were to offer something to gamers which they could not already get from these other games it would have to be in the area of solutions to these specialized problems.

Five major areas were identified through the playing of DUNGEONS AND DRAGONS, En GUARDE, EMPIRE OF THE PETAL THRONE, and various of the modifications to these available such as the Spell Point system contained in WARLOCK, as well as our own playtesting. Of these five areas I feel that LEGACY provides important solutions to four, and a makeshift but workable solution to the information flow problem. I leave it to anyone willing and able to arrive at a solution or at least a better makeshift solution than what I have arrived at. My creativity seems to have already run out in this area. The five problem areas are;

A. Suitable organization of all rules, charts, tables, and information.

B. The ability to resolve actions and activities of the game on the best possible scale level or definition of a turn in terms of time and sequence of play.

C. An openended representation of SKILLS and abilities aquisition. Experiance points just didn't cut the mustard, though like the LEGACY INFORMATION game rules it was good enough until something better came along.

D. A way of explaining and regulating the presence and absence of spontanious actions caused by the players and non-players. Obviously characters belonging to players initiated many actions and activities, but how were they different than non-player characters in theory or philosophy, and how could the game operator tell when a non-player character under his/her control was going to initiate an action and when s/he would not choose to respond to provocation.

E. A method of regulating and recording the flow of information through the game. How could information be consistently used as a resource, and indeed become the primary resource which the players sought after.

All of these problems do not effect all role assumption games in a decisive or crippling way, but the larger or more complex the role assumption game the larger and more limiting these problems became. Since it was our intention to establish the largest and most complex role assumption game we could to see what would happen, these problems had to be solved.

4. DESIGN LIMITATIONS: You can only do so much, and a careful set of decisions concerning what can reasonably be accomplished within the constraints of time, resources, ability, and need is the key to successfully designing a game system which does what it's supposed to do and doesn't do what it's not supposed to do.

From the earliest stages of playtesting and design I had a double standard with which I judged each rule or idea as it's possible inclusion in the game arose. The first of these was the lack of any limitation, for it was our plan to push the limits of possibility in the playtest version and give every rule under the sun an even break. The second was the realization and actualization of the fact that a game which covered every aspect of reality would also be hopelessly complex and unplayable. This meant that many of the rules used in the playtest were never intended to be included in the LEGACY game system, but the opportunity to examine the modularity and behavior of the primary rules with all of the superflous stuff we added on proved most valuable.

The second major design limitation we worked with arose from the fact that we were really designing as we went, and that each new rule had to have places and positions already prepared for it within the existing body of rules to prevent constant redesigning of the rules and procedures already in use. This effectively meant that we had to anticipate every rule we might ever need and plan ahead for it's inclusion, even though many of the rules planned for in this way would probably never be included because no player was interested in doing that which they would allow. A modular structure connecting all of the rules and the application of a proven philosophical system to evaluate and organize all of the actual and potential rules were the only methods we could find that were up to the task. The modular system is discussed in the design portion of these notes and is evident throughout the text of the rules themselves. The proven philosophical system we chose was systems theory due to it's excellent callibration and correspondence with existing aspects of gaming and simulation.

5. RESEARCH: I ended up reading an awfully large number of books and articles in order to maintain a correspondence between the simulated processes in the game and the actual processes we were simulating, and the players ended up doing a lot of research themselves into various obscure topics which they felt might help them achieve a greater degree of success in the game itself. Both they and I learned alot as witnessed by the bibliography and many of the examples contained in the rules themselves.

Basically the research that was done fell into four different groupings;

1. The first involved familiarizing ourselves with the already existing role assumption games and each new role assumption or other relevant game as it became available on the market. This was not only interesting and informative but fun.

2. The second involved the ongoing process of checking the rules and procedures in the game for accuracy. The distance of planets from the sun could be easily verified, but I lost countless time trying to find out information on such subjects as the mutation rate for humans under varying conditions of environment and culture, a simple yet comprehensive listing of the Human bodies physical requirements and the symptoms and effects of not meeting them, and a clear and accurate enough picture of how ecosystems operate to allow me to simulate them convincingly in a small amount of space. This was a never ending process, and every time you as a player or game operator question a fact, rule, or table and make changes based on information which you already know or that came from some other source you are continuing this important process.

3. The third involved questions and frantic research on the part of the players in an attempt to better themselves and their position in the game. Frequently someone would approach me with a suspicious set of request for information and resources which clearly showed that they were trying to establish a basis for their character in the game knowing something that they already knew and felt they would benifit from. Many new ideas and rules resulted from this free flow of information. Additionally the players often learned a great deal about subjects in which they otherwise might not have been interested in.

4. The fourth and final piece of research in which we engaged was a constant scan of all news and information items which came to our attention during the course of playing the EMPIRE OF THE RISING SUN playtest. Each event or situation that would arise in the real world would be subjected to the following questions; could this have happened in the game, has this happened in the game, how can we make this a possibility inherent in the game, and how could the players or nonplayers benifit from conspiring with themselves or each other to bring about such a situation. This provided for a continual cross check between the game and reality. It was our feeling that a good role assumption game should be capable of simulating any given aspect of reality, and since we were attempting to create the grandad of all role assumption games we felt that the game should be able to simulate any combination of circumstances occuring in real life. By the time two years had passed we were suprised to find that many of the actions in the game closely mirrored actual events, that little if anything happened in reality that couldn't have hap-

pened in the game, and that it was often helpful in understanding the events and their implications to think of them in terms of the game and using the various levels, numbers and arbitrary labels required to do so. This was an unexpected benifit, but it helped make the already enjoyable task of game design an even more exciting one.

6. DESIGN: This will be discussed in detail presently.

7. PLAYTESTING AND EVALUATION: Besides the research type evaluation listed above the LEGACY game recieved playtesting and evaluation in two major manners. The first was a three year long playtest marathon campaign, and the second was a series of mini-playtests intended to examine in detail the strengths and weaknesses of several specific aspects or rules which caused confusion or doubt in our minds. To illustrate the nature and value of the playtests I am including here a brief (has to be, hundreds of pages have already been written by myself and others describing events of the playtest) summation of the events and activities of the players and non-players within the course of the three years.

EMPIRE OF THE RISING SUN

IT all began on Tekumel, land of splendor and mystery and home of the EMPIRE OF THE PETAL THRONE. Three players came by boat to the land of Tsolyanu and spent their remaining funds to obtain accomodations within the Crimson Palace of Much that is Expensive, a cheap local hotel for travelers whose soup is not to be eaten and whose beds are the home of many organisms. They were quickly approached by a succession of citizens seeking their participation in foul endevors, human sacrifices and the like. Presently an envoy from Jondar the Slaver approached them requesting their help in penetrating deep into the forbidden though now defunct Temple of the Nameless One located in the central portions of the city Jakalla. They agreed, having come to the end of their funds, and great adventures ensued.

At the same time a rival of Jondar had also obtained the services of a player character to assist him in the exploration and looting of the Temple of the Nameless One, and as anyone who knew the complete story could quickly deduce a confrontation was soon to come.

Both parties entered and explored different though adjoining portions of the Temple, and the discovery of many technological items (primarily weapons) still in working order threatened to quickly escalate the conflict. Additional trips were made down into the temple accompianied by death and adventure which quickly beset most non-player characters and even one player character who subsequently joined the Jondar faction. At the climax of an especially profitable trip inside the temple Jondars rival learned the nature and value of what Jondar and the player characters had already recovered and resolved to take immediate steps to prevent further competition and to end the career of Jondar the Slaver. A frightening battle took place under the streets of Jakalla, and the victor Jondar elevated the surviving player characters of his faction to high levels of power and wealth. Other player characters who neglected to survive the battle began again as new persons just arriving in Jakalla.

The primary survivor and chief benificiary of the struggle, Hyberbad by name, then became enbroiled in a set of technological machinations with the Lyr-Da, the main posessers of technology and nasty guys to boot. Out of these activities Hyberbad managed to emerge with a special artifact, the GOD STAVE, and a new name, TRION, due to a temporary joining of his, the stave's, and an associates minds. TRION proceeded to consolidate his control of the Temple of the Nameless One, fake his own death, gained the as yet non-existent ability to teleport through a fluke among flukes and a die roll of 00 at the time he most needed it, and broke into a Lyr-Da family/clan stronghold in the mountains of mirth. Things were already out of hand, and while other players continued to struggle along the game operator (myself) began to force TRION out of the game. He was just to powerful, and no good playtesting was going to get done with a player character like that hanging around and gumming up the works. Subsequently TRION found a starship and left the planet. Player characters he had left behind stepped into the power vacume he had created by leaving and were subsequently stepped on by the enraged Lyr-da and others.

Presently TRION conducted explorations of a large number of star systems, settling himself on the planet Krevass circling the star Anton. Other players expressed a desire to explore stars and do things like that themselves rather than continue slinging swords and being attacked by Lyr-Da, so they were mercifully killed and reborn with identities capable of accessing spaceships and the like.

TRION continued to get out of hand, establishing cultures and researching a variety of frightening technologies. He discovered that remnants of the EMPIRE OF THE RISING SUN still existed and planned to make contact with them eventually. Unfortunately he became to big for the game systems britches before than and a macro-agent within the game, the LORDS OF LIGHT who did a convincing impersonation of gods talked him into going back in time 1,300 years and developing a culture hidden in a nearby gas cloud.

Other players gradually gained in stature and abilities while TRION rocketed ahead. Learning an outrageous amount of stuff over the period of 1,000 years and in complete control of a culture numbering over 16 billion sentients he seemed destined to make trouble for the LORDS OF LIGHT themselves. He did, but in the process got himself enbroiled in the fight between the LORDS OF LIGHT and the LORDS OF DARKNESS and was trapped in an alternate reality. He died trying to escape, and what was left of him was combined with Bellegeront, a friend and associate of his, and an unknown third individual known as the composite entity THOTRIS. THOTRIS spread out across the millions of realities, causing trouble, dragging other player characters and vast numbers of non-player characters with him and eventually getting into the fight between the LORDS OF LIGHT and the LORDS OF DARKNESS way over his head.

Subsequent events revealed that Tekumel, Tsolyanu, and the city of Jakalla were really one of two poles between which the millions of alternate realities existed. The LORDS OF DARKNESS on Tekumel and the LORDS OF LIGHT amongst the COURTS OF CHAOS at the other pole were fighting it out and had recruited other TRIONS who had not died, other THOTRIS'S, and a wide variety of other powerful types from out among the multitude of possible realities. THOTRIS and other player and non-player characters he had brought with him were faced with the paradox of fighting themselves while all the while the plot thickened and the implications of each action taken by the player characters multiplied.

At this point everything became far to cosmic for the players and the game operator (myself), and the dynamic equilibrium which had for three years struck a balance between other commitments and the bizarre reality of the EMPIRE OF THE RISING SUN finally tilted with a sickening lurch away from the game and towards other ways of spending time and creative energy. For myself it was a time for consolidating the rules and information generated by the playtest and compiling them into a publishable set of rules and procedures which a normal type person could understand and use.

For Russel J. Stambaugh, (TRION, THOTRIS) it was the ongoing world of personal commitments, game design which is his profession, and the organization of the Ann Arbor end of the ORIGINS 78 convention which was miraculously to occur someplace close to where I live for the very first time.

For Greg DeCesear, (BELISARIUS TAL), it meant a continued interest in gaming and role assumption games, work, and a responsibiliy or ten in organizing the ORIGINS 78 convention.

For Bruce Duffy, (many characters to numerous to mention, ERRON I, ERRON II, RANDOM WEIR, the composite entity RANDOM MALTHUS, and the most killed character award) it meant rest and regrouping, the ingestion of yet additional science fiction books, movies, and magazines, and the construction of a role assumption campaign together with Greg DeCesaer based on the strengths rather than the weaknesses of the EMPIRE OF THE RISING SUN playtest.

To all of the individuals participating in the testing of this phase of LEGACY my profound thanks. SPECIAL thanks to the three mentioned above, and a special twenty one sun salute to Russel Stambaugh, without whom none of this would have ever gotten so completely out of hand and out of control in a thousand years which is less time than he played in the game.

The second set of playtests were conducted on the spur of the moment with whoever was available and willing. Most of them were without redeeming value save for the obvious increase in the quality of the LEGACY rules. Most often they consisted of endless duels to test the combat system, making characters climb mountains and jump off cliffs to test the CONSTITUTION rules, and having characters go insane with thought to test the INTELLIGENCE rules. One of the playtests during this period was different and will be briefly described below.

Four players were given characters representing Keya-Teu of moderate age and abilities, a set of information and resources, and a mission to journey to an unexplored island to find a specific type of plant whose roots were needed by the community to make medicine to control the greater fever.

A series of decisions concerning the initial resources were made by the players, and they then embarked on the journey to and exploration of the island. Several interesting things occured, such as the discovery of an especially purple and delicious vine, the contamination and near death of one of the players due to an unfortunate encounter with spores, (played by Bruce Duffy who nearly achieved the questionable honor of killing yet another character in yet another of my playtests) and the escape from and observation of a lot of big snakes. The group was able to return to the community with sufficient stores of the needed root to make all of the required medicine, and all of the players agreed that the game was interesting and fun to play. Concern was voiced over the complexity of the game, which many thought added more confusion than clarity. This is at least partially true, but all of the players expected detailed information at various points during the playtest which could only have been generated using complex game systems or else created (made up) by the game operator.

This variety of play tests combined with the careful examination of this game by many persons knowing a lot more about gaming than I do have convinced me that it all works much the way I say it does and that it is reasonable and appropriate for me to sell it to you.

8. FINAL EVALUATION AND USE: You be the judge. I have included an address at which I am eager to answer or at least contemplate any comments and suggestions I am sent and to which I am committed to answering questions about the game and the manner in which it is played if accompianied by a self addressed, stamped envelope, and a questionaire at the back of the booklet which I sincerely hope will be returned to me. I put a lot of work into this game, and the only way I will know if it was worthwhile is to here from people who are using it or parts of it to enhance their own gaming experiences. Sales themselves don't tell the tale because far to many bad games sell quite well and then sit on the shelves because nobody can or will use them. If you feel this way about LEGACY then I have not done you a service and I wish that you'd write and tell me about it. If the game is valuable or worth the money you spent on it then I have done you a service and I wish that you would write and tell me that. The final evaluation can only be made by people who have never met the designer and are examining and evaluating the game solely on it's own merits or lack there of. I have personally been disapointed or outraged to often of late by bad games which were not worth the money I spent on them or were not usable due to poor organization of rules or failure by the designers to include some or all of the needed rules and procedures. If for any reason you feel that this is the case with the LEGACY game system I feel it is your duty to tell me. That way I may be prevented from designing and publishing other games which are equally unworthy in your eyes.

All of the above aside, I believe in the LEGACY game system. I would not have worked so hard to publish it if I did not think that at least some members of the gaming and other communities would find it useful and informative. A large body of rules exist as a result of the EMPIRE OF THE RISING SUN playtest, and if you have enjoyed or appreciated these rules that is sufficient reason to publish the rest of them. Any encouragement or thanks that you can offer will be but incentive to get out the next volume.

THE RHYME AND REASON BEHIND THE DESIGN

There were several things I set out to do when the concept of the LEGACY game system first entered my mind during one of those sleepless nights following a ten hour DUNGEONS AND DRAGONS session. I didn't like the mapping system because it seemed to whimsical, to limited, and it wasn't convenient to talk about large areas of land such as continents because the only maps which could be conveniently made were all of specific, limited locations. I didn't like experience points because there was no such thing even approximately in reality, because I didn't agree that killing some pirates who happened to have a ship full of gold made me smarter, wiser, or better than studying magic in the library or practicing swordsmanship in the courtyard. I didn't like the way characters were rolled up because which type of character I was to be was almost predetermined by the dice I rolled, yet once the play of the game began my personal statistics were rarely consulted. I kept gettin the impression that not much would change if my stats went up or down, and when this happened I was largely vindicated. And finally, I didn't like the fact that there was no underlying plot or setting within which I played my part, be it small or large. I was continually faced with the realization that the only legends being made were my own or my friends. The great deeds were all being done by player characters and the impression that I was not an individual living in another world but merely the least apathetic member of a small village in the middle of nowhere was strongly felt. I felt the urge to solve the mysteries of creation, climb the impossible peak, and wrest the powers of creation and negation from the hands of the gods themselves. This things were possible within the D and D game system, but there was no body of past history, no actions of other non-players, no wealth of information or clues from which I could derive a direction in which to avail myself. It was usually a situation of chosing an idea of my own, trying it, and waiting to see wether or not the game operator liked it and was willing to let me get away with it or hated it and was going to have me killed for even thinking of such a thing. Often it seemed that the game operator was the most intelligent and interesting person playing the game and it angered and frustrated me that I couldn't match wits with him/her within the game because I was effected by rules s/he made for me and s/he was effected by nothing I did if s/he didn't want to be.

All this drove me slowly crazy, until I finally went out and bought myself a copy of EMPIRE OF THE PETAL THRONE and set out to map each of the hexagons of the two large plastic map on small hex sheets with each large hex containing about 150 small hexes. This was the rude beginning of the modular terrain mapping system included in the LEGACY rules. I liked it a lot because I could have a map suited to my needs quickly and it was easy to orient yourself due to the regulizing structure of the hex grids. Others agreed, and soon we were fighting some battles and adventures on the plastic maps, some on the more detailed maps I had made, and some on specific maps of cities, passages, buildings, and other points of interest.

The second thing I set out to correct was the lack of background information. I typed up a package of information for each person playing the game. These packages contained a listing of several local legends, information about the planet Tekumel and the Tsolyanu culture. Next I took several science fiction and fantasy books, (The Regiments Of Night by Ball, the Broken Lands and the Black Mountains by Saberhagen, the Star Men of Lyr-Dis by Brackett, and the Star Bridge by Williamson and Gunn) and inserted their plots whole cloth into the backdrop of the game. I used these like pre-made subplots to the primary plot line of the player characters and events which directly concerned them. This meant that there were always adventures to be had if one kept one's ear to the ground. Next I established a clan system and spent some time creating hereditary fueds, alliances, bizarre initiations, and the like. Next I created a few memerable characters (non-player) such as Jondar the Slaver, Dalienor the son of the Emperor, Magen the Starship, and Gillgara the Sorceror Supreme. All togehter I got the feeling that I had a real planet on my hands and that things would happen in the game regardless or perhaps with limited regard ot the actions of the player characters. I was feeling much better already, but so far I had not done anything significantly different than many other conscientious game operators.

The next step was to design a game system explaining why player characters so often lord it over non-player characters and how I could tell when and what a non-player character was going to do. This resulted in the concept of INTENTIONALITY, and was the beginning of the truly unique aspects of the EMPIRE OF THE RISING SUN playtest. INTENTIONALITY is explained in detail in the GAME OPERATOR'S SECTION, but a few details of the early concept are in order. Initially INTENTIONALITY was a completely secret statistic. No one playing the game new that it existed even though I had each of the players role percentile dice to determine their initial INTENTIONALITIES. Player characters usually started out with 4,5,or 6 while non-player characters usually started with INTENTIONALITIES equal to or less than 1. A few of the non-player characters such as Gillgara and Jondar the Slaver started out with higher INTENTIONALITIES, and flows of INTENTIONALITY were established which would impart higher INTENTIONALITIES temporarily to non-players meeting certain conditions. In this way I was charting and recording the major historic and cultural trends and probabilities of the planet, and I was really starting to identify and be excited by the doings.

Next came a set of rules which limited the actions I as the game operator could take to interfer with or force my will upon both player and nonplayer characters. The best route left open to me to effect or influence the actions or decisions of player characters was to animate or simulate the actions of one of the non-player characters currently in posession of some INTENTIONALITY and go have an encounter with the player character. This was not only more challenging and more fun but also gave the players the distinct impression that the world aroun them was filled with indivduals possessing wills and personalities of their own who might initiate actions and activities of their own if not beaten to the punch by the player characters. The added a touch of realism and competition which enhanced the play of the game substantially as well as occasionally making the player characters look foolish. I remember a circumstance where a player who had been experiencing difficulties in the game finally devised a plan to end his problems. The plan was good, but when the player began to initiate it he discovered that a non-player character ahd already thought of it and had been paying protection money for years to prevent anyone else from copying his idea. This meant that rather than resolve the problem the player was experiencing he was faced with yet another dangerous and messy situation which resulted in no small amount of embarresment and humiliation when the other players finally heard about it.

An entire series of other modifications continued until the game we were playing did not contain a single rule or table which was even based on EMPIRE OF THE PETAL THRONE let alone copied from the rules intact. The main thing that we discovered which was unexpected was that the more rules and limitations we placed on the game operator the more fun the game operator had running the game. Rather than playing the role of an all knowing and all powerful lord of creation the game operator was reduced to an extremely powerful player who could be bested or tricked if the players were good enough and sneaky enough. This matching of wits between the game operator proved to be the single most popular part of the game and players became interested in projects and adventures which would put them directly against the wishes or desires of the game operator simply to provoke a good fight. I personally enjoyed this immensely, and would not trade it for all of the powerful manipulations and god like powers I began the playtest with. I must confess, however, that the ability to hurl an occasional lightening bolt at certain players rumps would indeed be a blessing and a source of great satisfaction.

Focusing on the rules contained in the LEGACY booklet I would like to say a few pages worth of comments and critiscims of my own work both to make sure that the users of these rules are able to identify what is truly worthwhile and what should probably be replaced. Additionally I feel better after publicly admitting that I know the difference between a good rule or procedure and a bad one, and that no matter how hard I tried to prevent it a few bad ones slipped pst and found there way into the LEGACY rules. I would have liked it to be perfect, but my limited budget, time, and typing skills made the simple completion of the project a higher priority than the replacement of a few weak rules and procedures.

PREFACE SECTION: From the earliest days of fantasizing about the possible publication os all or some of the LEGACY rules some day I was aware that more than any other game the rules would require a complete and well organized preface containing enough information and suggestions to allow the reader of the rules to orient him/herself and prepare for what promised to be a lengthy period of studying and integrating the rules booklet. By the time rough drafts of the rules themselves had been prepared I knew that the several pages I had originally thought would be needed could easily expand to ten or twenty. The decision to prepare the text on 11" X 14" sheets of paper and photoreduce them to conserve space and save money shrunk the size of the preface back down to what I felt was a large but acceptable 10 pages. My interest was in writting rules, not lengthy descriptions of rules, and I knew that most gamers would not appreciate what they might feel were wasted pages which could have been better spent introducing the planetary resource or technology game systems, but I felt that I owed a reasonably complete preface to those gamers who were either not familiar to role assumption games or else were new to gaming as a whole. If you found the preface especially painful it was probably because you had already decided how and what to read about in the rules and didn't want to be bothered by a lot of definitions and directions for reading the rules which by then you may have already skimmed or read. I only hope that nobody suffered to greatly from failing to read my advice about only studying the basic rules indicated by the solid black margins the first time through. I repeat it here for those gamers who read the designer's notes first such as myself.

Speaking of the margins, they were an innovation which I think makes the LEGACY booklet not only more interesting looking but also allows the players and game operator an immediate and simple method of determining which rules are basic, which are complicated, and which are not rules at all but merely examples seeking to make the same point as a rule or rules but in a different way. In all the margins took more space than would have been required to simply state at the beginning of each rule wether or not it was basic, advanced, or an example so if they do not assist the reader and user in a major way then they were probably not worth the extra space and trouble except as an experiment.

The organization of the rules in other respects is geared for a much larger body of information and rules which have not yet been published in any form by any game manufacturer that I know of. Some day I would like to publish another large batch of these rules, and in anticipation of doing so these rules have been written in such a manner as to allow their complete interlocking and integration with the new set of rules if and when they appear. In doing this a small price was payed in terms of the coherence or degree to which certain aspects of the rules were explained, but if the second rules booklet is published it will have been clearly worthwhile and if it is not published then the game operator still profits by obtaining a set of rules which are intended and designed to be used in conjunction with bigger and more elaborate things.

PERSONAL ABILITIES AND CHARACTERISTICS: This is by far the most developed and most immediately useful of the rules contained in this booklet, even though several existing role assumption games have done a good job of simulating these types of interactions and functions and all role assumption games contain this type of rules and procedures in one form or another. If you really like the CONSTITUTION and INTELLIGENCE game systems you already have, or if you don't like what you have but don't like the LEGACY versions any better then they should probably be either ignored or repleced by a set of rules of the game operators own devising. Failing this, however, I suggest to all and sundry that the balance and implications which lie behind the idea of a single value reflected in a level of ability sufficient for basic operations and tied to a set of sub-values applicable to advanced operations has a lot more advantages and benifits than have begun to be hinted at in the rules. I never did find the space to explain the levels of potential and actualization mentioned on page 8 and included on the advanced player character record sheet, and this is but one of the several modifications and additions to the basic or simple rules included in this booklet which fir in so nicely and so well to the way the VALUES and SUB-VALUES are organized that the single primary goal of the most successful and powerful player character in the EMPIRE OF THE RISING SUN playtest was the aquisition and improvement of abilities, and this player spent three years of real time chasing down various abilities and having an incredibly diverse and interesting progression of adventures which continued on after the player himself gave up. Just ot mention a few there is world scaping, the combination of INTENTIONALITY, MODULAR TERRAIN MAPPING, and DENSITY AWARENESS which allows a player to restructure the geological and biological processes of entire planets, and an entire logically structured Psychic ability game system based on the writtings of Marion Zimmer Bradley and her widely acclaimed Darkover books.

The CONSTITUTION rules are, if anything over developed while the INTELLIGENCE rules are lacking a wealth of detail which may be brought to them if only someone where interested. This variation in the development of these two important game systems is in part due to the bias expressed by my playtesters in favor of Psychic Ability and CONSTITUTION and against INTELLIGENCE and most of the other possible game systems. This is also partially a response on my part to what I percieve are the immediate needs of the role assumption gaming community. If game operators and players have not already been exposed to and had practice using simple rules systems such as INFORMATION then the wierd and sometimes disquieting implications and depths of a well developed INTELLIGENCE game system is probably ahead of it's time. Of course the next year or so may prove me completely wrong, and if this is the case I will get on the ball and come up off of what I have tested and designed concerning the inner quirks and potentials of the mind, Human or otherwise. The briefest but most interesting example I can give is to mention the existence of a racial conscious which is linked to the abilities of PRE-COGNITION and a variety of other strange and fascinating types of fooling around inside of the heads of other people, mostly those who have been dead for thousands of years. Tied to this is the game systems of DISCORPORATION etc. and the pages of rules suddenly swell all out of proportion for what it is reasonable for one booklet to contain.

The ENABLERS SUB-SECTION does what it is advertised as doing, replaces the concept of experience points with an ongoing and openended actual representation of the players SKILLS and TECHNIQUES. Nothing would make me happier than for some enterprising young person to think up a whole batch of ENABLERS and print them up and offer them for sale so as to prevent the scrounging around of numerous game operators all over the place for the proper formula's for skills and techniques. All the while I was playtesting the LEGACY rules I kept wishing somebody would do this, and I will probably continue wishing that somebody would do this until either it is done wrong or else I finally do it myself. It's not that the ENABLERS are so hard to construct, because they are not, but the simple fact that I prefer to spend my time creating slightly more exciting and seemingly more important things such as making maps? Just my personal preferences, but it has been determined that with about 80 ENABLERS the world begins to open up for the players and the value of being able to physically manipulate the ENABLER card combined with all of the room each card contains for rules and explainations makes it the most versitile and accurate yet easiest used of any of the proposed successor game systems proposed to replace EXPERIENCE POINTS. The other factor is that I as well as many other gamers harbor a secret liking for experience points and the individual ratings of SKILL LEVEL which may be obtained on a variety of ENABLERS is a good comprimise between gamers who want something that works and gamers who yearn for the good old days when players went up "levels" after adventures and it was a simple matter to figure out how powerful you are and what share of the treasure you deserve by examining your characters "level'.

The interactions stuff will have to stand on it's own merits. I personally feel that many of the best contributions to role assumption gaming are contained in these rules, and that universal application of the ACTIVITY POOLING MULTIPLIER will enhance the value of the game beyond measure, but it is basically in the hands

The combat system works rather nicely I think, and when a larger number of individuals are fighting it out using the advanced combat rules the ATTACK/DEFENSE VALUE TRACK is quite an interesting representation of the ebb and flow of combat. The primary weakness in the combat system is the absence of sufficient ENABLERS to simulate all of the possibilities and intricacies of offensive and defensive weaponry, skills and techniques, and wierd but bold manuevers which frequently either won the day or took the life of the practicionar. This could be easily remedied by the game operator, but I was physically unable to include more ENABLERS than I did due to cost limitations and my determination to sell the LEGACY gaem at the lowest price I could manage so as to offer the gaming habby a service rather than just another overpriced game as have become so common recently.

ENVIRONMENT SECTION: These rules contain a lot of meaty stuff, but my overwhelming favorite are the MODULAR TERRAIN MAPPING HEXES. The ability to reach into a box and pull out instant mountains, valleys, rivers, and other types of geological and ecological features in a few seconds time is not only convenient but essential when the time comes to explore alien planets and the like. As mention in the rules themselves there are interesting and useful games which may be played with the MODULAR TERRAIN MAPPING HEXES alone, and if the game operator takes his/her time and does a careful job when designing and constructing these hexes they will return years of service and be a source of neatness which lives on long after the game is over. It is my dearest wish that enough people will be interested and buy copies of the LEGACY game to allow me to print up and sell sets of color MODULAR TEYRAIN MAPPING HEXES which would be available in a variety of packages such as COASTLINES, HIGHLANDS, SAVANNA, ISLANDS, MOUNTAINS, DESERTS, and the like. This idea really excites me, and if people who would want and use such beautiful components would band together and agree on the mapping symbols and color combinations there could be hexes coming from several different sources representing the perceptions and ideas from a wide variety of individuals concerning the geology and biology of planets. I don't want to go on for very long about this idea here and now, but I urge anybody interested in exploring the possibilities of a modular terrain mapping system which would be applicable to all types of games and other applications to contact me for further information.

The FLORA AND FAUNA CARDS are really neat as can be, and I only wish that money and time considerations allowed me to share with you the feeling of confidence that a game operator derives from having a card file full of these cards, each representing the capabilities and behavior of a different organism. All I can do is to urge game operators to create their own FLORA AND FAUNA cards, and perhaps someone like the judges guild will find it within themselves to undertake the manufacture and distribution of such cards. I am interested in it myself, but have far more enthusiasm for the MODULAR TERRAIN MAPPING HEX ideas mentioned above. The ration, nurishment, cultivation, hunting and gathering rules are a disaster in my mind. This is not because they are difficult to use or do not fill the need for these areas to be simulated. Actually they represent a more reasonable approach to these areas then I have seen elsewhere. My complaint which may or may not be appreciated by the reader is that they are independent and not integrated with the other rules contained in this booklet. There are vast areas of the environmental system and the cultural evolution and trends towards agriculture and domestication of animals which are simply not represented in this booklet because to do so would double or triple it's size and cost. Unfortunately the ommision of these rules leaves the ration picture high and dry in my mind and I apologize for what I feel is the arbritrariness of the tables and charts on which it is based. Once more for the record I am not critisizing these rules for their performance, because they do just what it syas they do just fine. I am only concerned with unleashing on the world yet another clump of rules which are not really associated or interdependent on other rules and characteristics of the simulated environment, even though they should clearly be intimately tied to the environment and it's characteristics. I fell that there is to much of this type of rule writing going on in the currently available role assumption games, but I am forced to conceed that often the game designer is faced with a choice of either abstracting to the point of artificial independence or else simply ignoring the existence or need for a particular set of rules. I still fell strongly that most of the rules written in this dissasociated manner need not be, however.

The CLIMATE AND WEATHER rules and the GEOSPHERE rules could easily have been as long as this entire booklet. If I ever get the opportunity the other rules which may be published as a campanion volume to this booklet will contain the types of planetary exploration rules which allow the game operator to simulate a wide variety of different planets and to represent the causes and effects for climate and weather, natural history, and the location and availability of resources in a much more comprehensive manner. In the mean time the game operators will either have to accept the sparse tidbits included in this booklet or else devise rules of their own covering these areas. As you have probably noticed the forms for mapping the planet are chock full of spaces and opportunities for such rules and planetary variations.

GAME OPERATORS SECTION: Though self explanitory a few words are in order - To many times I have seen role assumption games go unused or unplayed because the owner did not know how to go about initiating a scenario or campaign and the rules do not say in anything approching a complete or comprehensive way. I agree that the checklists and descriptions in the game operators section are not comprehensive and the final solution to this problem, but I have tried my damndest to offer some solid suggestions and advice to those thinking about operating scenarios or campaigns, and I sincerely hope that it will benifit someone who needs such advice or suggestions.

THE ADAPTION OF OTHER ROLE ASSUMPTION RULES

There is a lot of things that are not included in the LEGACY game that are included on other commercially available role assumption games, and it is the intention of this portion of the designer's notes to offer tips and suggestion as to how these other rules may be adapted for use with the LEGACY game system and how the LEGACY game system may be adapted and modified to operate in conjunction with these other rules. The game will be discussed individually whenever possible, though an occadional point of general applicability may find it's way into an otherwise disciplined discussion. If I have left out any important role assumption games or have slighted or insulted the designers of any of the role assumption games included in these pages I would like to apologize before hand. It is not my intention to slight or misrepresent your efforts or to inadvertently omit your contribution, but neither is it my intention to supply false or misleading information to the gameing community as a whole as regards the value and possible applications of your product.

DUNGEONS AND DRAGONS - The first and dispite my frequent criticism probably still the best simulation of a magic/fantasy type setting in which players become magic users, fighters, clerics, or any one of a number of other character types now possible and wander around the dungeons, wilderness, or both of a fantastic planet filled with monsters, dragons, treasure, and what have you. If you are interested in this type of scenario or campaign I cannot recommend to highly that a copy of the first four booklets of rules, Men and Magic, Swords and Spells, Monsters and Wilderness, and the Greyhawk supplament be begged, barrowed, or bought. More people have found pleasure and fun playing DUNGEONS AND DRAGONS than all other role assumption games combined, and it is always worthwhile to study a phenomena so successful and so widespread.

The magic system may be adapted virtually whole cloth, though I prefer the spell point variations contained in WARLOCK (I believe volume 8 of the SPARTAN magazine) or the idea though not the actuality of the METAGAMING FANTASY TRIP magic system. The D and D list of spells cannot be beat, however, and a little juggling of the levels of a few may result in a magic system which will stand by the game operator in most circumstances. The lists and descriptions of magic items will also have to be examined for occasional inconsistencies as regards the reference to wisdoms and intelligences of 13 and the like but there is nothing that will not carry over easily with a little thought. If you want to use the monsters in D and D the number of hit dice should be multiplied by 20 to form the basic activity die roll needed to kill the beast.

I like my combat system and personal abilities and characteristics rules better than those of D and D, which is why I built them the way I did, but if you prefer the D and D systems the conversion is an easy one. Simply ignore most of the effects and rules contained in the CONSTITUTION SUB-SECTION and forge ahead. The LEGACY game is intended to allow other rules to be grafted onto it, and I have found in experiments that few situation arise which cannot be quickly and easily resolved by the game operator.

The thing about D and D which I feel should be scraped is the CHARACTER TYPE rules. Treat the different character types as SKILL ENABLERS represented by pages of rules instead of cards and things should be alright. Of couse if the DUNGEONS and DRAGONS combat and other game systems have been retained remember that the internal balance between player types is largely a product of this artificial division and restriction of the number and amount od stuff a character may learn or accomplish and prepare to either replace this balance factor or let things get out of hand.

EMPIRE OF THE PETAL THRONE is an example of a game that is not fundimantally unlike LEGACY in it's goals but that is organized around a particular scenario or set of information which may not be changed without changing the entire structure and balance of the game. Remember that EPT is where LEGACY began nearly four years ago and that if the game operator is interested in a scenario such as the planet Tekumel may offer the LEGACY rules fit in very well with them, right down to the use of percentile dice for nearly all random generation of effects. Once more one of the main things which can be gained from this game is the monsters, treasure, etc which is all carefully worked out and represented on nice tables.

METAPORPHOSIS ALPHA is a fine example of how enjoyable science fiction role playing games can be, and even though it suffers from many of the same weaknesses as the D and D game system I recommend that anyone interested in playing a campaign or scenario which involves technology, radiation, mutation, or a variety of other science fiction subjects go right out and purchase themselves a copy of this game. If used in conjunction with the LEGACY rules for which the two are almost ideally matched an extremely interesting campaign can be created which I will be willing to play in anytime I am in the area. If we had not already been two years or so into the EMPIRE OF THE RISING SUN game at the time METAPORPHOSIS ALPHA came out I would have sworn that Jim Ward and I had shared some strange extrasensory contact in our sleep, for some of the ideas and concepts contained in the METAMORPHOSIS ALPHA game are frighteningly close to things that we thought we were the only people cool enough to be tninking or doing. This proved to be a valuable lesson in the sometimes bizarre workings of parallel development. The best suggestion I can make concerning the blending of ALPHA with LEGACY is to pump the village shaman full of INTENTIONALITY and let it fly.

STAR PROBE represents to me everything that is wrong about the way TSR"organizes" it's rules. When I bought my copy I was stunned by the lack of usefull, interesting, or understandable rules though I freely admit that I have seen many poorer role assumption games. I cannot think of a reason why anyone would want to adapt the LEGACY rules to STAR PROBE or visa versa, but if some one knows of a reason perhaps they would like to buy my copy of STARPROBE. It has never been used, though I tried on several occasions.

STAR EMPIRES is a substantially more interesting set of rules which contains enough meat in the form of ideas and interesting tables to justify it's purchase price in my mind. If you are interested in formin a scenario or campaign revolving around the exploration of new planets and general adventuring in space their are many good ideas which may adapted in avariety of ways depending on the needs of the game operator.

EN GUARDE is another favorite of mine, and I feel that anyone who has never had an opportunity to play this game at least once is missing something. The experience of being a bastard son to a noble and sticking it to the father by succeeding far beyond what is reasonable or proper is both powerful and gratifying. This game has been mined for years by DUNGEONS AND DRAGONS game operators for clues in how to construct birth tables, gambling houses, and a variety of other bawdy types of rules. In a sense the LEGACY combat system is modeled around the more interesting aspects of the EN GUARDE combat system, and it is worth looking at as one of the earliest role assumption games if not as an interesting and fun game in it's own right.

TRAVELLER, also known as the case of the missing modules. This is a very interesting and worthwhile role assumption game focusing on the potentials for adventure and advancement out among the stars and in among the services and elements of a star spanning culture. It comes in three volumes just as DUNGEONS AND DRAGONS did when it first came out, and the only real fault that I can find with it is that at least two more volumes which do not yet exist are also required before it can be played. I recomend the combination of LEGACY and TRAVELLER, as each seems to have what the other lacks. One group of gamers in Detroit is already using many of the tables and forms from the early versions of LEGACY with some success in a TRAVELLER campaign, and from my own study of the rules I feel safe in saying that a skilled game operator could develope one hell of a nice campaign using both of these rules systems and a few ideas borrowed from STAR EMPIRES, METAPORPHOSIS ALPHA, and DUNGEONS AND DRAGONS.

There are a variety of other role assumption games available which are either similiar enough to one of those mentioned above to have the same basic comments apply or else are unsuitable in my eyes for the type of gaming to which the LEGACY game directs itself. Briefly a few of them are;

METAGAMINGS FANTASY TRIP: The nice thing about the mini-games is that they are cheap, and if you don't like them you don't feel as cheated as you would with a more expensive game. I know several people who like these magic and personal combat game systems very much, and though I don't agreeI do admit that they do the job and in many ways are better than the equivelent rules in LEGACY.

STAR FARER: A classic example of what LEGACY is not. If you try to play LEGACY in combination with beer, pretzels, warm fellowship, a good bowl and the like you are likely to be dissapointed or frustrated because often the level of challenge inherent in the game does not fit in well with such pharmacological recreation or general attitude of "let's play a game thats fun where we don't have to work or think to hard". STAR FARER on the other hand cries out for laughter, enjoyment, and the failure to take the whole thing seriously. There is nothing inherently wrong with that, though for this purpose I would much rather play a rousing game of TSR's DUNGEON, but it is a very different approach and type of game from LEGACY and I see little reason for adaption or modification of either for the purposes of the other.

Still other role assumption games already exist and my sources tell me that LEGACY will be only one of seven new role assumption games to be released at the ORIGINS 78 convnetion. Clearly the age of the role assumption game has come, and I can see only benifits coming from an increase in the competition for the role assumption gamers dollars.

It should be understood that LEGACY and another game for which I have a great deal of respect CHIVALRY AND SORCERY will probably stand alone for at least a year or two in terms of their shear size and level of complexity. It is hard to imagine how a commercial game design shop such as SPI, GDW, or AVALON HILL could make a conscious decision to sit down and design a game like either of these. The amount of time and effort which went into these two games would be prohibitively expensive for something that would be garanteed to have a limited audience. The difference between having a creative group of fanatics all working like mad on a common project for free and a trained staff of game designers doing it to earn a living is a substantial one, and I predict that the "MONSTER" role assumption games which will likely be emerging over the next few years will all be the products of individual fanatic hobbiests rather than SPI's WAR IN EUROPE "YOU ARE HITLER" role assumption optional rules.

I have no idea how Ed Simbalist and Wilf Backhaus were able to put together rules as complete as they have with as few apparent errors and still sell it for a comparitively low price. In order to bring LEGACY in for an affordable and possible expenditure in terms of money, time, and content I was literally forced to do all of the work myself, from graphics to typing, (as I am sure those of you able to spell have already deduced) and even to the extent of working with and assisting the printer to make sure everything is done as well as possible for the least price. The experience was beyond price, but if I sell every single copy of the game being printed I will recieve a return of approximately seven and one half cents return for each hour I spent working on the game, admittedly more than many gamers make for their hobbies, but hundreds of these hours were spent hunched over a type writer or drawing table and this I do not consider hobby like activities.

To get back to the point I started out to make last page CHIVALRY ADN SORCERY is an apparently fine and certainly very impressive game, but I think somebody would have to be crazy to want to combine 130 pages of rules of very small type with nearly 200 pages counting cards of small type in order to have fun. It would stand to reason that either one game or the other could serve as the center framework on which a series of scenarios, campaigns, rules modifications and the like could be hung. If for any reason anybody tries to combine the two I would like to here from them why they did it and what happened if the current means of communication are up to the task.

An entire slew of other games may be adapted and used in conjunction with role assumption games, and rather than discuss each one I will simply list several that I have either used or modified myself, have seen others use or modify, or else I have worked on using or modifying but never quite got around to finishing.

ALPHA - OMEGA	Game of ship to ship combat in space
WOODEN SHIPS ANS IRON MEN	Game of ship to ship combat in the age of fighting sail
SAMURI	An obscure little role assumption/miniatures type game
KINGMAKER	An enjoyable simulation of the war of the roses in England
Kriegspiel	I don't know why but I saw somebody modify it for use in a role assumption game concerning two countries fighting it out.
BATTLE FLEET MARS	Simulation of hypothetical revolt of the mining asteroids and martian mining interests against the ARES corporation.
VIKING	SPI ancient warfare during the dark ages
ANTI-MONOPOLY	I don't know why but I had a dream one night about modifying this game to simulate the gaming companies and primary hobbiest's attempts to break up the ORIGINS 2001 convention which was to be held in orbit. Featured an aged but still fiesty Jim Dunnigan who was responsible for simulating possible economic and color coordinated attacks on the gaming hobbiest monopolies and Gary Gygax as the rough but ready berserker who says surrender or die to the pilot of the space shuttle and nearly causes an interplanetary incident. Who says game designers don't have hyperactive imaginations!
GO	I was working on using a go like game in three dimensions to simulate the interaction of molecular surfaces, interplanetary waste disposal, ship to ship combat in space, or some other ideas to far out to mention until I found out a friend of mine named Tim had already perfected such variants without realizing it.
DIPLOMACY VARIANTS	The First World War has already had it's day, but Diplomacy contains such a nice abstract combat system that it ought to be good for a variety of purposes in simulating political and economic conflict between various factions involved in a role assumption game.
GO FISH	The quest for resources is such an important part of contemporary civilization it seems that rules allowing the redistribution of resources between players or else random resource aquisition might ...

Bibliography

- BIBLIOGRAPHICAL HEADINGS -

- ANTHROPOLOGY/SOCIOLOGY
- FICTION/RHETORICAL
- GENERAL/MISCELLANEOUS
- PHILOSOPHICAL/THEOLOGICAL
- ENABLERS/ARTIFACTS
- GAMES/SIMULATIONS
- HISTORICAL/ARCHEOLOGICAL
- SCIENCE/NATURAL HISTORY

ANTHROPOLOGY/SOCIOLOGY

Brace, Loring C.: The Stages of Human Evolution (Prentice-Hall 1967)

Chagnon, Napoleon A.: YANOMAMO, The Fierce People (Holt, Rinehart and Winston 1968)

Darlington, C. D.: The Evolution of Man and Society (Simon and Schuster 1969)

Davidson/Cottrell: The Horizon Book of Lost Worlds (American Heritage 1962)

Furnas, C. C.: The Next Hundred Years: The Unfinished Business of Science (Reynal and Hitchcock 1936)

Goodall, Jane: My friends the Wild Chimpanzees (National Geographic Society 1967)

Gould, Richard A.: Man's Many Ways (Harper and Row 1973)

MacCana, Proinsias: Celtic Mythology (Hamlyn Publishing 1970)

Morgan, Elaine: The Descent of Woman (Stein and Day 1972)

Robert, Henery M.: Robert's Rules of Order (Pyramid 1967)

Sapir, Edward: LANGUAGE, an introduction to the study of speech (Harvest 1949)

Thomas, William L.: Man's Role in Changing the Face of the Earth (University of Chicago Press 1962)

Time-Life Books: The Emergence of Man Series (Time-Life 1972)

Tunis, Edwin: Colonial Living (World Publishing 1957)

ENABLERS/ARTIFACTS

Reid, William: Arms Through the Ages (Harper and Row 1976)

Sloane, Eric: A Museum of Early American Tools (Funk and Wagnalls 1964)

Thorpe, Heather G.: A Handweavers Workbook (Macmillian 1956)

Tunis, Edwin: Weapons, A Pictorial History (World Publishing 1954)

Wigginton, Eliot: Foxfire 3 (Anchor 1975)

Wise, Arthur: The Art and History of Personal Combat (New York Graphic Society 1972)

SCIENCE/NATURAL HISTORY

Asimov, Isaac: The Universe (Avon 1968)

Asimov, Isaac: The Wellsprings of Life (Signet 1960)

Barnes and Noble: The Atlas of Human Anatomy, Revised (A. Hoen and Company 1968)

Crafts, N. F. R.: Industrial Revolution in England and France: Some Thoughts on the
Question, "Why was England first?"
The Economic History Review, Second Series, Volume XXX, #3, Aug. 1977
(Popper and Company 1977)

Dienes, Z. P.: Building Up Mathmatics (Hutchinson Educational 1960)

Questionnaire

As a critic or user of the LEGACY game system your opinions are uniquely well informed, and are of primary interest to the designer and other users of the LEGACY game system. If you would kindly take a few minutes of your time to complete this questionaire and return it to the address listed below I would be grateful.

It is critical that those designing games be kept informed by those buying and using games as to what they like, dislike, want, and need. Additionally, the LEGACY game system has a rich potential for use in a variety of areas which role assumption games have left as yet untouched. The designers and users of role assumption games need to keep each other up to date as regards these new developments.

LEGACY, 217 Harmon road, Camden, Michigan, 49232

Questions regarding the LEGACY rules will be promptly answered if they are legible and include a self addressed, stamped envelope for purposes of reply. Send to the address above.

NAME ADDRESS CITY STATE ZIP

INTEREST OR NATURE OF INVOLVEMENT IN SIMULATION AND GAMING

REASON FOR PURCHASING THE LEGACY GAME BOOKLET

PLACE OR METHOD OF PURCHASE

OTHER GAMES YOU PLAY OR HAVE PLAYED BESIDES LEGACY

WHAT DO YOU FEEL ARE THE STRONG POINTS OF THE LEGACY GAME SYSTEM

WHAT DO YOU FEEL ARE THE WEAK POINTS OF THE LEGACY GAME SYSTEM

IN WHAT WAYS WERE YOU REWARDED OR DISAPOINTED WITH THE LEGACY GAME SYSTEM

WHAT PROBLEMS DID YOU ENCOUNTER IN UNDERSTANDING AND USING THE LEGACY GAME SYSTEM

Please include any additional comments or opinions on the LEGACY game system on the back of this questionaire or on a seperate piece of paper. Thank you. I know that it's difficult to believe, but questionaires really are helpful and informative on occasion.